PB83-105098

Water Resources Data, Colorado, Water Year 1981
Volume 2: Colorado River Basin above Dolores River

(U.S.) Geological Survey
Lakewood, CO

May 82

U.S. Department of Commerce
National Technical Information Service
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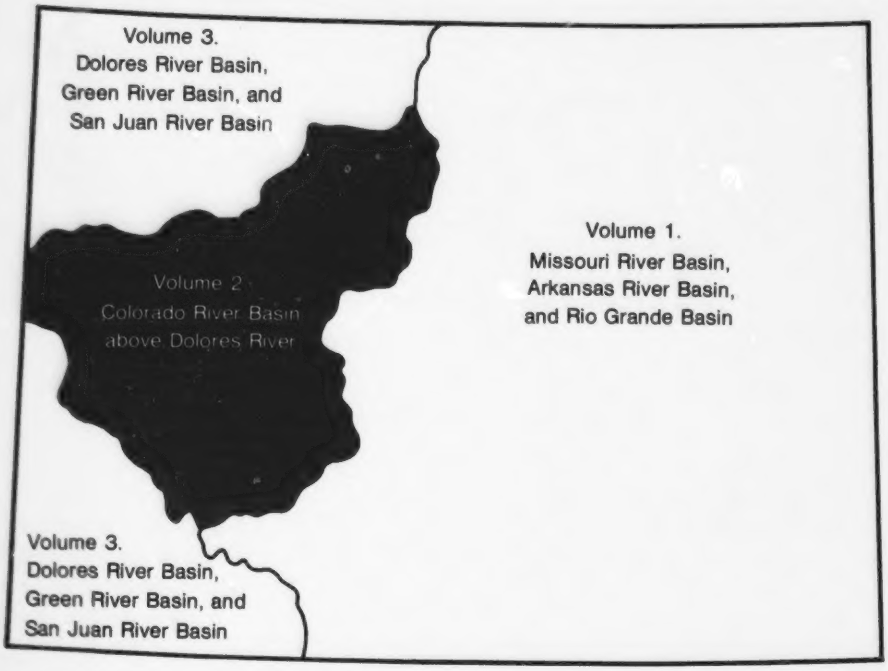
Water Year 1981

Volume 2. Colorado River Basin above Dolores River


Volume 3.
Dolores River Basin,
Green River Basin, and
San Juan River Basin
Volume 2
Colorado River Basin
above Dolores River
Volume 1.
Missouri River Basin,
Arkansas River Basin,
and Rio Grande Basin
Volume 3.
Dolores River Basin,
Green River Basin, and
San Juan River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-81-2
Prepared in cooperation with the State of Colorado
and with other agencies

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CALENDAR FOR WATER YEAR 1981

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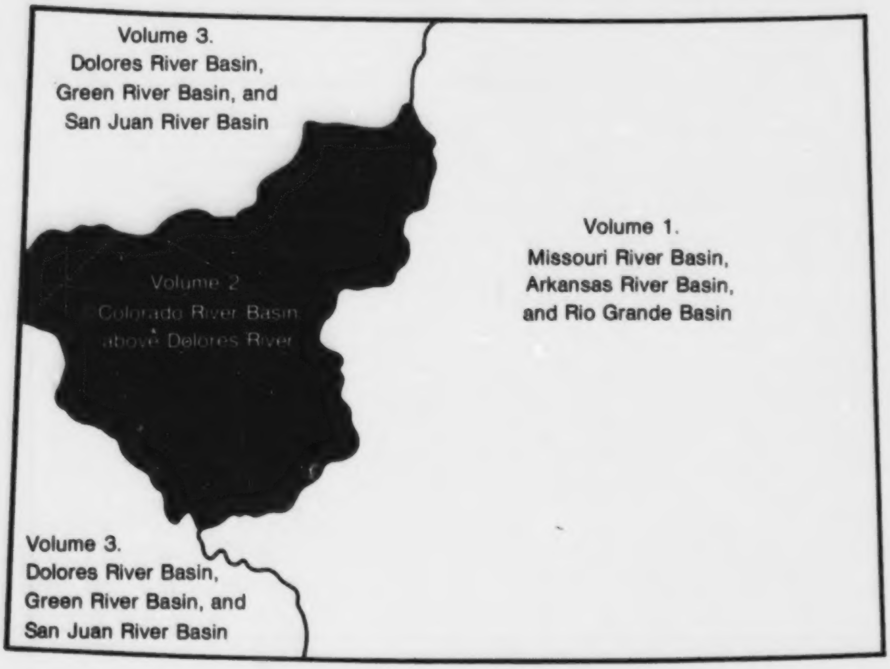
Volume 2. Colorado River Basin above Dolores River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Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Colorado write to:

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U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, CO 80225

1982

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Colorado and other agencies by personnel of the Colorado District of the Water Resources Division under the supervision of J. F. Blakey, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region.

This report is one of a series issued State by State under the direction of Philip Cohen, Chief Hydrologist, Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Colorado are in three volumes as follows:

Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
Volume 2. Colorado River basin in Colorado, above the Dolores River, and
Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

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16. Abstract (Limit: 200 words)

Water-resources data for Colorado for the 1981 water year consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of wells and springs. This report (Volumes 1, 2, and 3) contains discharge records for about 460 gaging stations, stage and contents of 22 lakes and reservoirs, 4 partial-record low-flow stations, 30 crest-stage partial-record stations, and 50 miscellaneous sites; water quality for 163 gaging stations and 300 miscellaneous sites; and water levels for 55 observation wells. A few pertinent stations in bordering States also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J.F. Blakey, district chief. These data represent that part of the National Water Data-System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

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Partial tables: (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature]

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WATER RESOURCES DATA FOR COLORADO, 1981

VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS
VOLUME 2: COLORADO RIVER BASIN ABOVE THE DOLORES RIVER
VOLUME 3: DOLORES, GREEN, AND SAN JUAN BASINS

INTRODUCTION

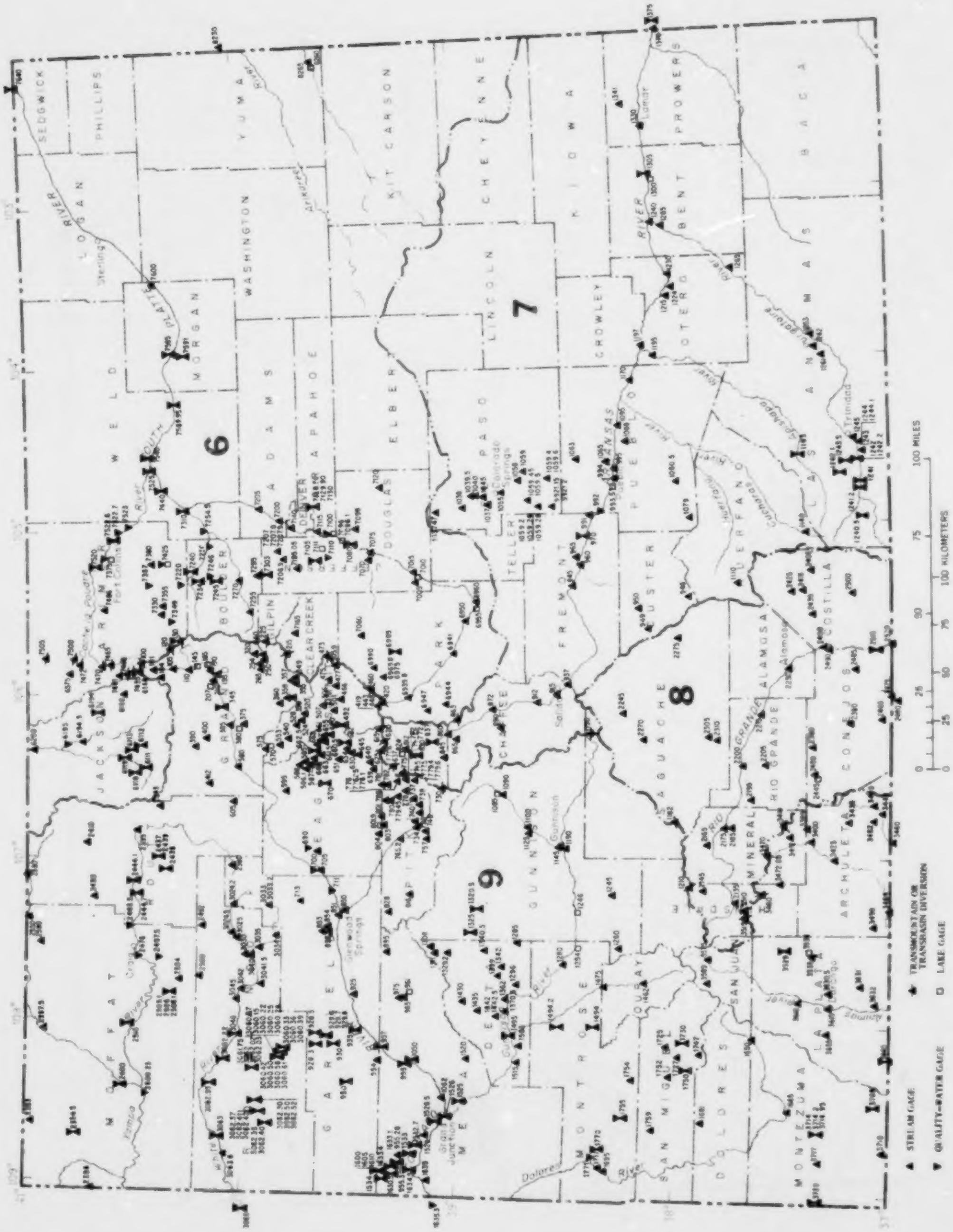
Water-resources data for the 1981 water year for Colorado consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (Volumes 1, 2, and 3) contains discharge records for about 450 streamflow-gaging stations, stage and contents of 22 lakes and reservoirs, low-flow data for 4 partial-record stations, peak flow information for 30 crest-stage partial-record stations and 50 miscellaneous sites; water-quality data for 163 streamflow-gaging stations and 300 miscellaneous sites; and water levels for 55 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. A few pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." These water-supply papers were published in an annual series through September 30, 1960, and then in 5-year compilations for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply paper entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Eastern Distribution Branch Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-81-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Comerce, Springfield, VA 22161.

Additional information, includingcurrent prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (303) 234-5092.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Lamar
Trinidad
Alamosa
Salida
Gunnison
Glenwood Springs
Grand Junction
Durango
Craig
SOUTH PLATTE RIVER
ARKANSAS RIVER
RIO GRANDE
Colorado River
Dolores River
Yampa River
White River
Gunnison River
▲ STREAM GAGE
▼ QUALITY-WATER GAGE
✶ TRANSMOUNTAIN OR TRANSBASIN DIVERSION
□ LAKE GAGE
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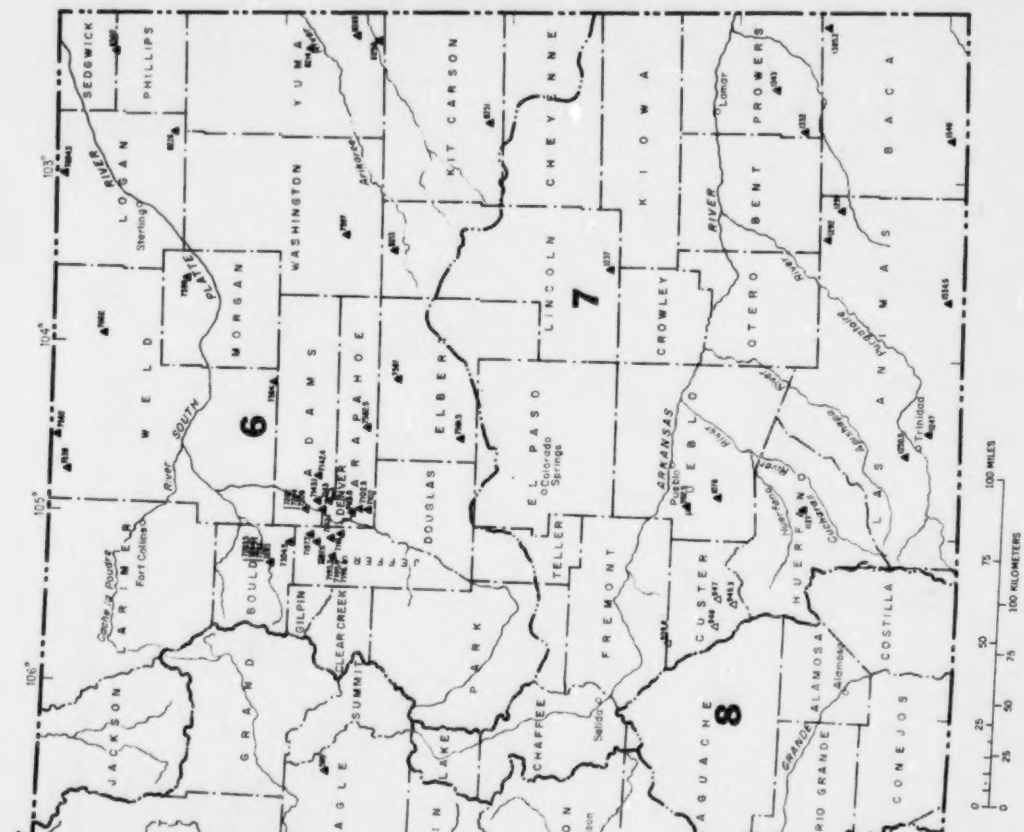
0 25 50 75 100 KILOMETERS

Figure 1.--Map showing locations of lake- and stream-gaging stations and water-quality stations in Colorado.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MESA
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GUNNISON
MONTROSE
OURAY
SAN MIGUEL
DOLORES
SAN JUAN
HINSDALE
MINERAL
SAGUACHE
RIO GRANDE
ALAMOSA
CONEJOS
COSTILLA
ARCHULETA
LA PLATA
MONTEZUMA
FREMONT
CUSTER
PUEBLO
HUERFANO
LAS ANIMAS
CROWLEY
OTERO
KIOWA
BENT
PROWERS
BACA
Sterling
Fort Collins
Colorado Springs
Pueblo
Salida
Gunnison
Glenwood Springs
Grand Junction
Craig
Durango
Alamosa
Trinidad
Lamar
SOUTH PLATTE RIVER
Cache la Poudre
ARKANSAS RIVER
COLORADO RIVER
RIO GRANDE
Gunnison River
Dolores River
White River
Yampa River
Arikaree
Purgatoire
Huerfano
Animas River
41°
40°
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38°
37°
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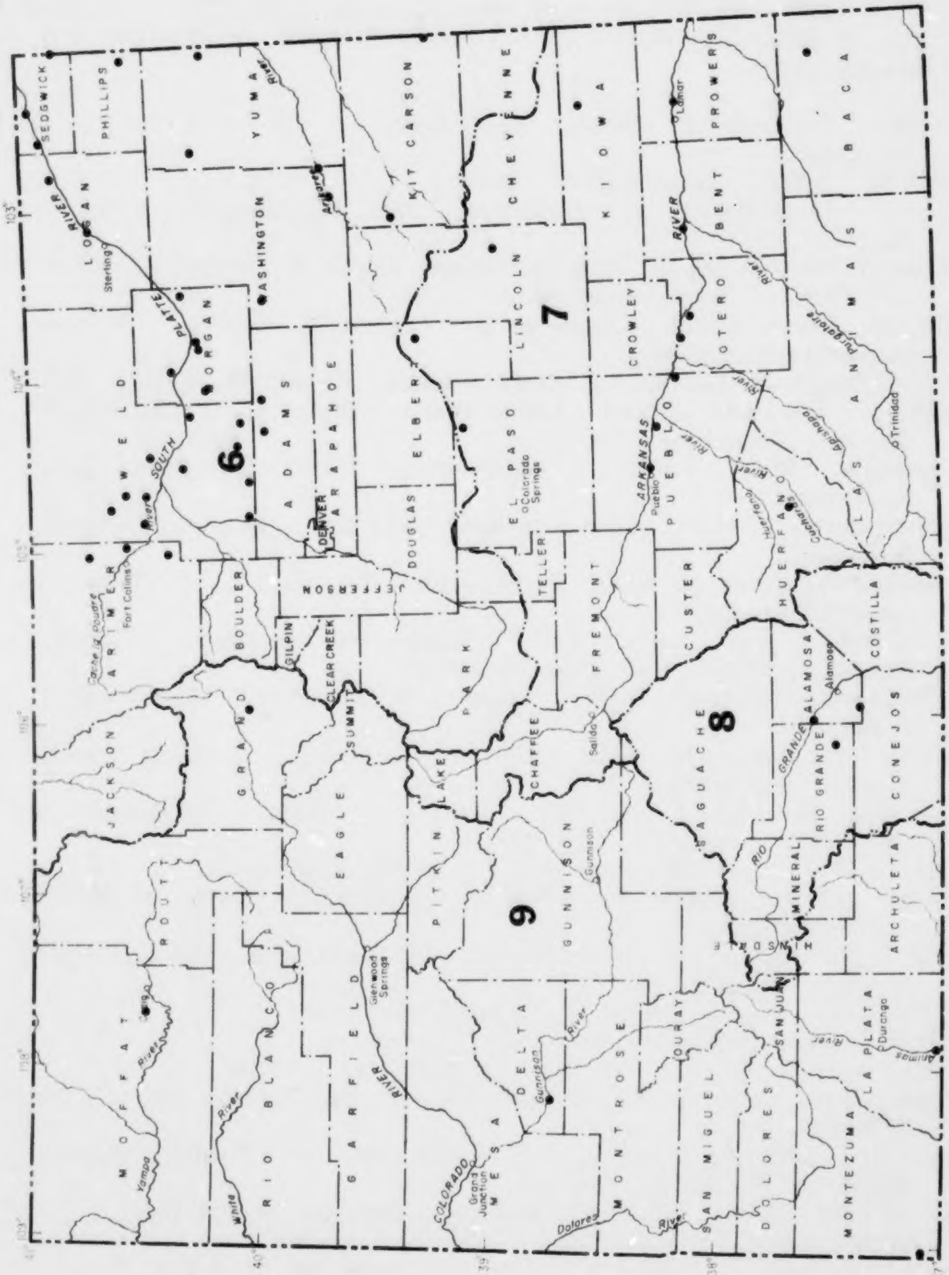
108°
107°
106°
105°
104°
103°
▲ CREST-STAGE PARTIAL RECORD STATION
△ LOW-FLOW PARTIAL RECORD STATION
0 25 50 75 100 MILES
0 25 50 75 100 KILOMETERS

Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.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CHAFFEE
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EAGLE
SUMMIT
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ROUTT
MOFFAT
RIO BLANCO
GARFIELD
Glenwood Springs
SOUTH PLATTE RIVER
Cache la Poudre
ARKANSAS RIVER
Purgatoire River
Apishapa River
Huerfano River
Cucharas River
RIO GRANDE
COLORADO RIVER
Gunnison River
Dolores River
White River
Yampa River
Animas River
Arikaree
Republican River
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108°
109°
41°
40°
39°
38°
37°
0 25 50 75 100 MILES
0 25 50 75 100 KILOMETERS

Figure 3.--Map showing locations of observation wells in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895, and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado Water Conservation Board, J. W. McDonald, Director.
Colorado Department of Highways, Jack Kinstlinger, Executive Director.
Arkansas River Compact Administration, Frank G. Cooley, Chairman and Federal Representative.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Denver Regional Council of Governments, Robert D. Farley, Exc.
Northern Colorado Water Conservation District, E. F. Phipps, Secretary-Manager.
Purgatoire River Water Conservancy District, Clyde Dawn, President.
Southwestern Water Conservation District, Robert H. Tyner, Manager.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
St. Vrain and Left Hand Water Conservancy District, James A. Cinea, Executive Director.
Uncompaghre Valley Water Users Association, James Herbit, Manager.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
City and County of Denver, Board of Water Commissioners, Charles F. Brannan, President.
Eagle County Commissioners, Dale F. Grant, Chairman.
Mineral County, Nellie M. Wyley, Chairperson, Board of County Commissioners.
Pitkin County Board of County Commissioners, George Ochs, County Manager.
Pueblo Civil Defense, Betty 'Jo Hopper, Director.
City of Aspen, Phillip Mahoney, City Manager.
City of Aurora, C. A. Wemlinger, Director of Utilities.
Colorado City Water and Sanitation District, W. T. Hambric, District Administrator.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Fort Collins, Roger E. Krempel, Director of Utilities.
City of Glenwood Springs, John D. West, Manager.
City of Northglenn, Richard Pl Lundahl, Director of Public Works.

Financial assistance was also provided by the U.S. Army, Corps of Engineers, U.S. Army; U.S. Air Force; Bureau of Indian Affairs, Bureau of Land Management, Bureau of Mines, Water and Power Resources Service, and the National Park Service, U.S. Department of the Interior; and the U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control.

ACKNOWLEDGMENTS

The Colorado District personnel who contributed significantly to the collection and preparation of the data in this report were:

Dannie L. Collins, Subdistrict Chief, R. G. Kretchman, C. E. Lesher, D. L. Butler, C. H. Corneille, D. E. Hitch, R. A. Jenkins, M. E. Whiteman, and K. N. Butcher of the Grand Junction subdistrict office.

H. E. Burch, J. D. Bennett, and D. W. Grey of the Durango field office.

Douglas B. Manigold, Subdistrict Chief, J L. Blattner, E. D. Charbonneau, G. B. O'Neill, R. M. Neam, J. D. Martinez, B. F. Rasmusson, B. E. Kelley, and H. E. Hodges of the Lakewood subdistrict office.

HYDROLOGIC CONDITIONS

Overview of the 1981 Water Year

The 1981 water year began with a major winter storm in mid October that covered the mountains with an early season snowpack. A pattern of dry warm weather began in early November and by December the drought was well established. Almost no precipitation fell east of or in the mountains from December to February. In March, several storms brought moisture to the eastern plains and to the higher elevations. The warm dry weather pattern returned in April, and by the end of the month snow remained on the ground only at elevations above 11,000 feet (3,353 meters). Weather in May was wet and cool and may have been the biggest factor in avoiding a major drought. However, the snowpack in May on the Upper Colorado River Basin was only about 31 percent of normal, and all snow-course measurements along the Continental Divide were the minimum of record for May 1. Thunderstorm activity throughout the summer months helped to minimize the effect of the lack of precipitation during the water year.

Streamflow

Streamflow at the index stations was near normal at the beginning of the water year and remained near normal until April. However, with practically no snow pack in the mountains to contribute to the runoff, the streamflow became deficient in May and remained that way the rest of the water year. In May, the streamflow decreased to 40 percent of normal at the East River at Almont index station and to 52 percent of normal in June for the Eagle River below Gypsum index station. Figure 4 compares monthly and annual mean discharges at the two index sites with the 30-year (1951-80) median values of those mean discharges.

Chemical Quality of Streamflow

The average dissolved solids, hardness, and total nitrogen concentrations of selected streams statewide remained fairly consistant with the averages of the previous 5 years (fig. 5). Total phosphorus is the only exception shown where at some of the selected stream average concentrations were significantly lower. In general, waters discharging from the State to the east are much higher in dissolved solids than waters draining to the west. A majority of the dissolved solids are acquired as the water drains through the eastern plains area.

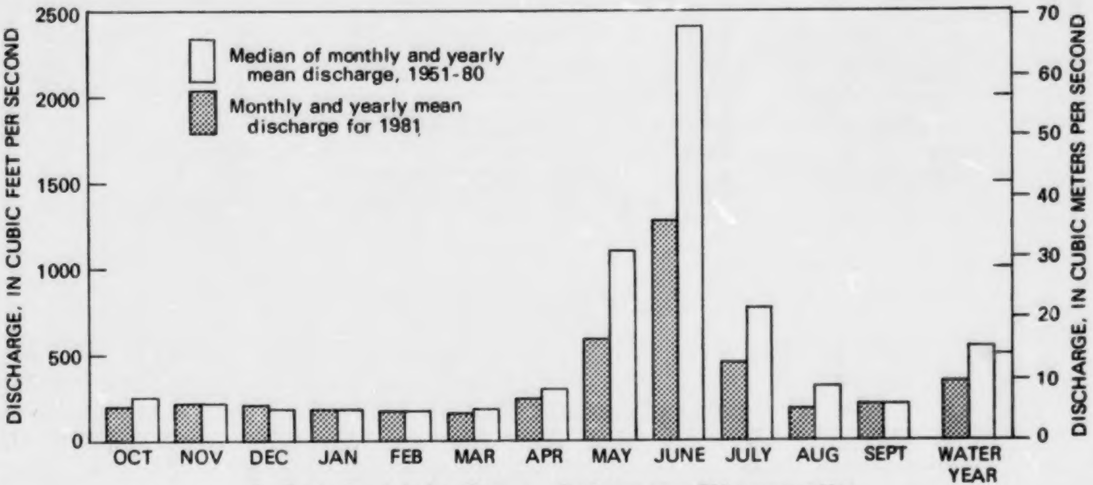
At numerous eastern drainage sites in the area above Pueblo, large concentrations of nitrogen have been observed and occasionally PCB's have been detected in the stream sedimentary material. Dissolved uranium in detectable concentrations is not uncommon in some of the waters draining the eastern part of the Rocky Mountains.

The average suspended-sediment concentrations of the selected streams in the State for the 1981 water year were generally higher than the averages of the previous 5 water years (fig. 5). A substantial increase of over 4 times the average suspended-sediment concentration was observed at the Colorado River near Colorado-Utah State Line site. The average concentrations shown indicate that those streams draining the western slope of Colorado have higher suspended-sediment concentrations than the ones draining the eastern slope.

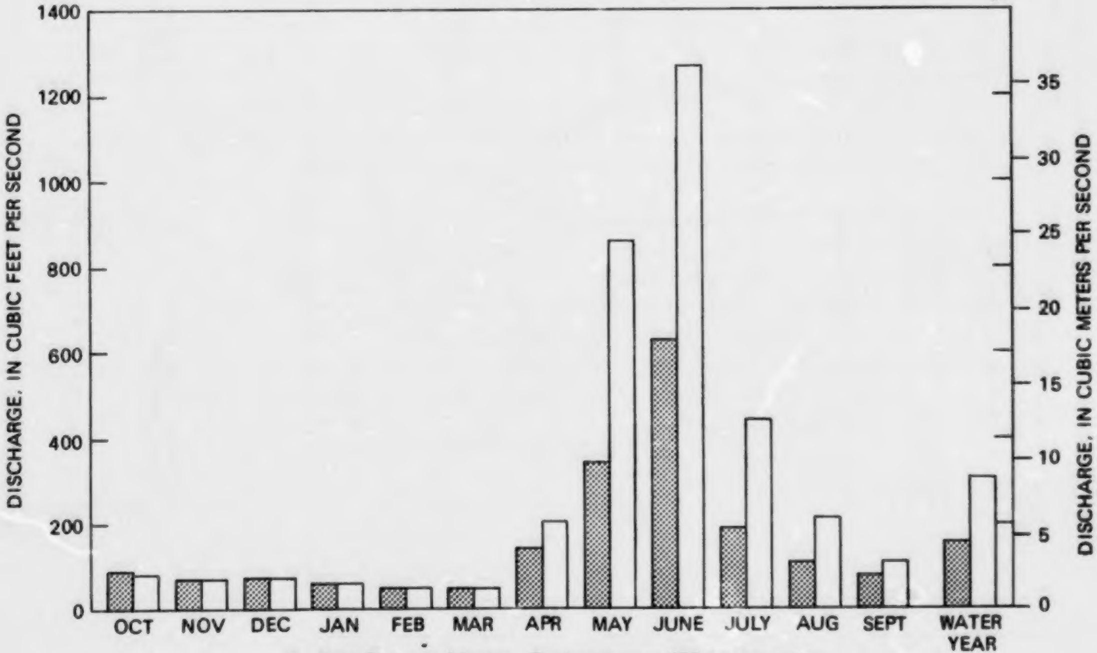
Ground-Water

Water levels show the response of the aquifer to pumping and recharge. Water levels also are used to help define hydrologic units and water-supply potential.

The aquifer systems within the State can be grouped into two catagories: unconsolidated aquifers and consolidated aquifers. The unconsolidated aquifers receive recharge from precipitation, return flow from irrigation, and leakage from canals and streams. Discharge from the system normally is by discharge to streams and by evapotransporation. The consolidated aquifers receive recharge from precipitation and streams crossing outcrop areas. The aquifers primarily discharge water to springs and streams.



A. Eagle Creek below Gypsum. Drainage area 944 square miles (2,445 square kilometers)



B. East River at Almont. Drainage area 289 square miles (749 square kilometers)

Figure 4.--Discharge for 1981 water year compared with median discharge for 1951-80 water years for two representative gaging stations.

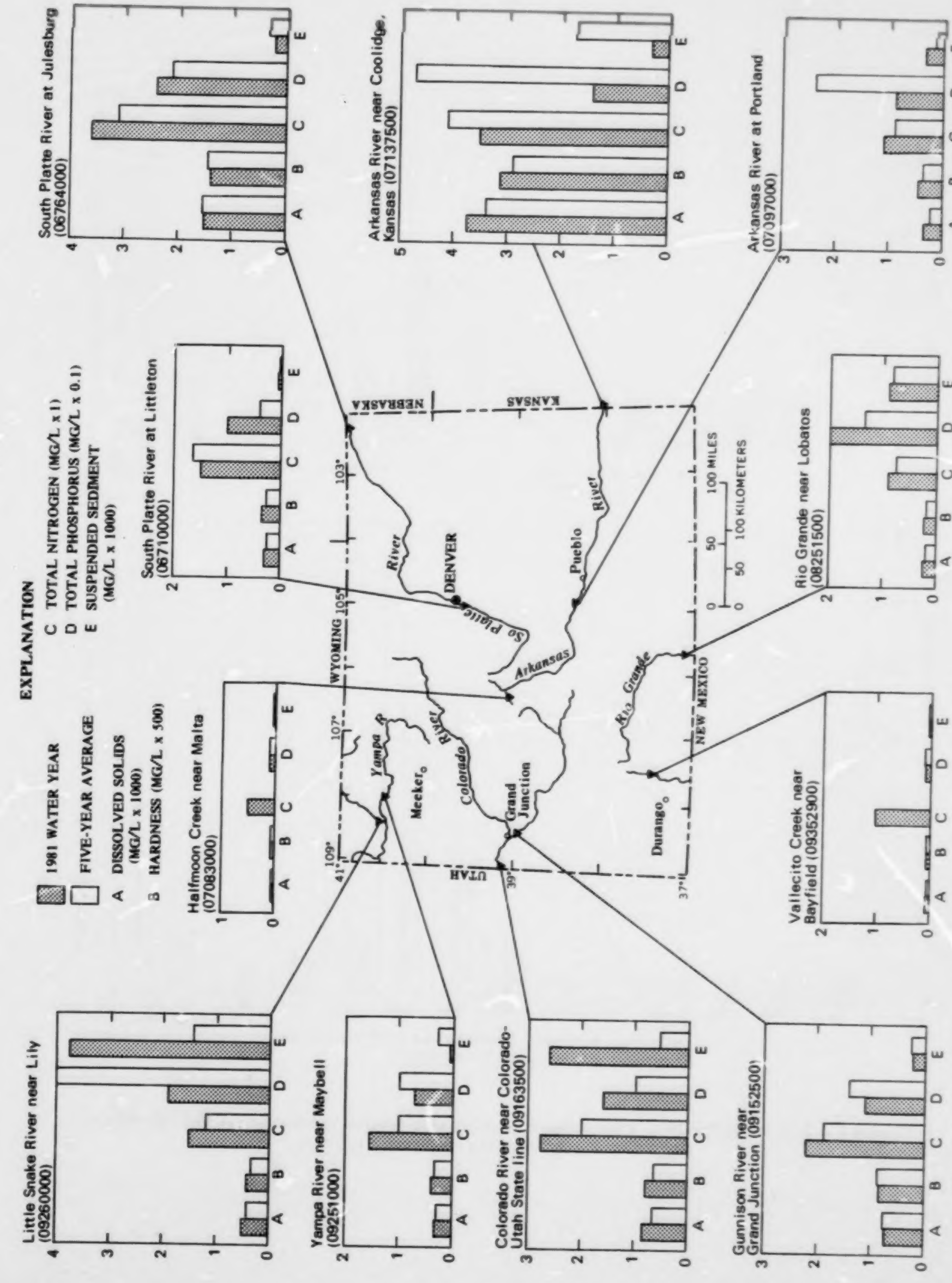


Figure 5.-- Average concentrations for 1981 water year compared with the average concentrations for 1976-80 water years.

East of the Continental Divide, because of the substantial utilization of ground water by man, the major fluctuations are caused by artificial withdrawal. West of the divide, where withdrawal is low, the water-level fluctuations reflect mostly changes in natural conditions.

Ground water is being mined from the aquifers in the Northern High Plains and in the Denver Basin. The aquifers in the alluvial valleys in eastern Colorado have been affected by ground-water pumping. Most of the aquifers in western Colorado are still under natural conditions except where ground water is being pumped for the production of energy resources.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

> Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2C° on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a streambed, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area of volume of habitat.

Ash mass is the mass of amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and those for periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (cfs, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second, or 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multi-ply by	Ion	Multi-ply by
Aluminum (Al^{+3})*......	0.11119	Iodide (I^{-1})..........	0.00788
Ammonia as N..........	.07139	Iron (Fe^{+3})*..........	.05372
Barium (Ba^{+2}).........	.01456	Lead (Pb^{+2})*..........	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1})*.......	.14411
Bromide (Br^{-1})........	.01251	Magnesium (Mg^{+2})......	.08226
Calcium (Ca^{+2})........	.04990	Manganese (Mn^{+2})*.....	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2})*........	.03406
Chloride (Cl^{-1}).......	.02821	Nitrate as N..........	.07139
Chromium (Cr^{+6})*......	.11539	Nitrite as N..........	.07139
Cobalt (Co^{+2})*........	.03394	Phosphate,ortho as P..	.09686
Copper (Cu^{+2})*........	.03148	Potassium (K^{+1}).......	.02557
Cyanide (CN^{-1})........	.03844	Sodium (Na^{+1}).........	.04350
Fluoride (F^{-1})........	.05264	Strontium (Sr^{+2})*.....	.02283
Hydrogen (H^{+1})........	.99209	Sulfate (SO_4^{-2}).......	.02082
Hydroxide (OH^{-1})......	.05880	Zinc (ZN^{+2})*..........	.03060

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*

[All values calculated to three significant figures]

Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay............	0.00024 - 0.004	Sedimentation
Silt............	.004 - .062	Sedimentation
Sand............	.062 - 2.0	Sedimentation or sieve
Gravel..........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per mL of sample.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids content in the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total recoverable* concentrations of the constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total* concentrations of the constituent.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in the U.S. Geological Survey is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1981, is called the "1981 water year."

Weighted average is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1975.

WDR is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation-network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual Water-Supply Paper series, "Quality of Surface Water for Irrigation, Western States."

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revisions, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second (ft^3/s) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second (ft^3/s) for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the following agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and Water and Power Resources Service, U.S. Department of the Interior.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 35.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent wth available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C=5/9(°F-32°) or °F=9/5(°C)+32°.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll a and b, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the streams.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 4.--Water-Supply Paper numbers and parts, water years 1941-71

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65)[a]
1941	942	942	942	942	----
1942	950	950	950	950	----
1943	970	970	970	970	----
1944	1022	1022	1022	1022	----
1945	1030	1030	1030	1030	----
1946	1050	1050	1050	1050	----
1947	1102	1102	1102	1102	----
1948	1132	1133	1133	1133	----
1949	1162	1163	1163	1163	----
1950	1187	1188	1188	1189	----
1951	1198	1199	1199	1200	1264
1952	1251	1252	1252	1253	1362
1953	1291	1292	1292	1293	1380
1954	1351	1352	1352	1353	1430
1955	1401	1402	1402	1403	1465
1956	1451	1452	1452	1453	1485
1957	1521	1522	1522	1523	1524
1958	1572	1573	1573	1574	1575
1959	1643	1644	1644	1645	1699
1960	1743	1744	1744	1745	1746
1961	1883	1884	1884	1885	1886
1962	1943	1944	1944	1945	1946
1963	1949	1950	1950	1951	1952
1964	1956	1957	1957	1958	1960
1965	1963	1964	1964	1965	1967
1966	1993	1994	1994	1995	----
1967	2013	2014	2014	2015	----
1968	2095	2096	2097	2098	----
1969	2145	2146	2147	2148	----
1970	2155	[b]2156	[b]2157	[b]2158	----
1971	2165	[b]2166	[b]2167	[b]2168	----

[a] Annual series, "Quality of Surface Waters for Irrigation, Western States."

[b] In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

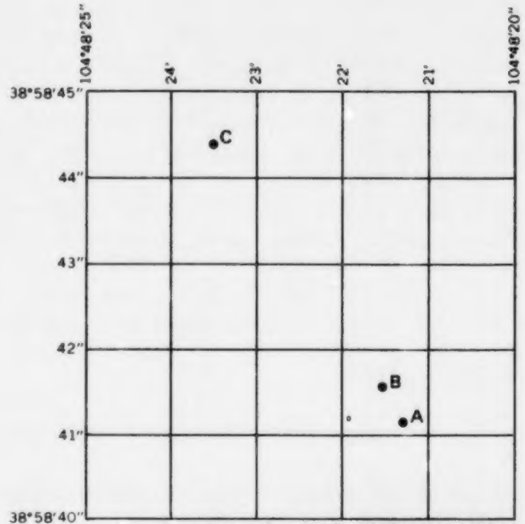
EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last digit is a sequential number for wells within a 1-second grid, as shown below in figure 6.



Coordinates for site A 385841N10448211
B 385841N10448212
C 385844N10448230

Figure 6.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre (4.0-ha) tract using the U.S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi (10 km) by townships and is subdivided in the east-west direction every 6 mi (10 km) by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi² (93-km²) area described by the township and range designation is subdivided into 1-mi² (2.59-km²) areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres (259 ha), is subdivided into quarter sections. The 160-acre (64.8-ha) area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre (16.2-ha) area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre (4.0-ha) area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre (4.0-ha) tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

The local number is provided for continuity with older reports.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.
1940	910	1945	1027	1950	1169	1955	1408
1941	940	1946	1075	1951	1195	1956-60	1760
1942	948	1947	1100	1952	1225	1961-65	1845
1943	990	1948	1130	1953	1269	1966-70	1980
1944	1020	1949	1160	1954	1325		

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

COLORADO RIVER MAIN STEM

09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO

LOCATION.--Lat 40°19'33", long 105°51'22", in NE¼NW¼ sec.12, T.4 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (150 m) downstream from Baker Gulch, 1.0 mi (1.6 km) upstream from Bowen Gulch, and 5.5 mi (8.8 km) northwest of town of Grand Lake.

DRAINAGE AREA.--53.4 mi² (138 km²).

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period Aug. 3 to Sept. 30, which are poor. Transmountain diversion above station by Grand River ditch (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 61.1 ft³/s (1.730 m³/s), 44,270 acre-ft/yr (54.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 976 ft³/s (27.6 m³/s) June 30, 1957, gage height, 7.19 ft (2.192 m); maximum gage height, 7.30 ft (2.225 m) June 25, 1971; minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 358 ft³/s (10.1 m³/s) at 2300 June 8, gage height, 5.90 ft (1.798 m); minimum daily, 3.5 ft³/s (0.099 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	9.0	6.4	4.0	4.0	6.6	64	142	67	17	18
2	14	10	9.0	6.0	4.0	4.0	6.6	69	147	79	17	19
3	13	10	9.0	6.0	4.0	4.0	6.6	88	164	111	17	21
4	13	11	9.0	6.0	4.0	4.0	6.6	74	173	99	16	18
5	13	11	9.0	6.0	4.0	4.2	6.6	69	172	88	18	16
6	13	11	8.5	6.0	4.0	4.5	6.6	71	192	74	20	20
7	12	11	8.0	6.0	4.0	4.5	7.0	63	264	87	21	19
8	12	11	7.6	6.0	4.0	4.5	7.4	53	282	65	16	18
9	11	10	7.3	6.0	4.0	4.5	8.6	53	292	61	20	20
10	11	10	7.0	5.4	3.7	4.5	10	53	255	60	18	20
11	10	9.8	7.0	5.0	3.5	4.7	11	50	213	55	18	21
12	10	11	7.0	5.0	3.8	5.0	13	49	179	58	21	18
13	12	14	7.0	5.0	4.0	5.0	15	46	152	62	28	18
14	17	13	7.0	5.0	4.0	5.0	17	43	128	54	24	17
15	28	14	7.0	5.0	4.0	5.0	19	46	108	46	21	20
16	25	9.1	7.1	5.0	4.0	5.0	23	47	94	43	22	17
17	19	8.2	7.2	5.0	4.0	5.0	29	52	84	41	20	15
18	18	8.4	7.3	5.0	4.0	5.3	36	52	78	40	17	14
19	19	8.7	7.4	5.0	4.0	5.5	45	48	73	45	14	13
20	20	8.8	7.5	5.0	4.0	5.5	50	53	72	35	16	13
21	19	8.6	7.5	4.5	4.0	5.5	40	55	71	31	18	17
22	18	8.3	7.5	4.5	4.0	5.5	34	55	70	27	21	20
23	15	8.3	7.5	4.5	4.0	5.5	28	62	68	26	20	16
24	12	8.3	7.5	4.5	4.0	5.5	33	62	65	25	17	15
25	13	8.3	7.5	4.5	4.0	5.5	44	66	61	26	[illegible]	16
26	13	8.3	7.0	4.5	4.0	5.8	54	88	81	27	19	21
27	13	8.3	7.0	4.5	4.0	6.0	64	101	99	34	18	18
28	11	8.3	7.0	4.2	4.0	6.0	58	116	115	24	18	16
29	13	8.6	7.0	4.0	---	6.0	65	159	84	19	20	14
30	11	9.0	7.0	4.0	---	6.4	72	144	72	18	20	14
31	11	---	7.0	4.0	---	6.6	---	146	---	17	18	---
TOTAL	455	295.3	234.4	157.5	111.0	158.0	822.6	2197	4050	1544	591	522
MEAN	14.7	9.84	7.56	5.08	3.96	5.10	27.4	70.9	135	49.8	19.1	17.4
MAX	28	14	9.0	6.4	4.0	6.6	72	159	292	111	28	21
MIN	10	8.2	7.0	4.0	3.5	4.0	6.6	43	61	17	14	13
AC-FT	902	586	465	312	220	313	1630	4360	8030	3060	1170	1040

CAL YR 1980 TOTAL 23756.3 MEAN 64.9 MAX 662 MIN 5.4 AC-FT 47120
WTR YR 1981 TOTAL 11137.8 MEAN 30.5 MAX 292 MIN 3.5 AC-FT 22090

09011000 COLORADO RIVER NEAR GRAND LAKE, CO

LOCATION.--Lat 40°13'08", long 105°51'25", in NE¼SW¼ sec.13, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 200 ft (61 m) downstream from bridge on U.S. Highway 34, 400 ft (120 m) upstream from high-water line of Shadow Mountain Lake at elevation 8,367 ft (2,550.3 m), and 3.0 mi (4.8 km) southwest of town of Grand Lake.

DRAINAGE AREA.--102 mi² (264 km²).

PERIOD OF RECORD.--July 1904 to September 1918, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as Grand River (North Fork) near Grand Lake 1904 and as North Fork of Grand River near Grand Lake 1905-18.

REVISED RECORDS.--WSP 1213: 1914. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,380 ft (2,554 m), from topographic map. Prior to June 15, 1934, nonrecording gage at present site and datum. June 15, 1934, to Sept. 26, 1944, water-stage recorder at site 1,100 ft (340 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 200 acres (809,000 m²) of hay meadows above station and about 2,000 acres (8.09 km²) below. Trans-mountain diversion above station by Grand River ditch through La Poudre Pass to Cache la Poudre River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--62 years (water years 1905-18, 1934-81), 89.1 ft³/s (2.523 m³/s), 64,550 acre-ft/yr (79.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,840 ft³/s (52.1 m³/s) June 15, 16, 1918, gage height, 7.0 ft (2.13 m), from rating curve extended above 1,100 ft³/s (31 m³/s); maximum gage height, 8.21 ft (2.502 m) Apr. 20, 1971 (backwater from ice); minimum daily discharge, 1.7 ft³/s (0.048 m³/s) July 18, 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft³/s (8.84 m³/s) at 0600 June 9, gage height, 5.41 ft (1.649 m), maximum gage-height, 5.64 ft (1.719 m) at 0700 Apr. 14 (backwater from construction dam); minimum daily discharge, 4.0 ft³/s (0.11 m³/s) June 21, 22, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	17	12	9.0	11	15	61	73	4.4	27	25
2	22	22	17	12	9.0	11	15	64	77	4.9	25	25
3	21	21	17	12	9.0	11	16	70	98	16	23	30
4	21	20	17	12	9.0	11	16	31	115	12	22	30
5	20	21	17	12	9.0	11	17	19	103	7.8	20	26
6	20	20	17	11	9.0	12	17	16	120	5.2	18	27
7	20	21	17	10	9.0	12	17	11	210	5.5	19	28
8	20	22	17	10	9.0	12	18	9.3	243	5.8	18	28
9	19	21	17	10	9.0	12	20	9.3	261	5.5	18	29
10	19	20	17	10	8.0	13	23	9.2	230	5.2	21	31
11	19	20	17	10	7.6	13	26	9.1	166	4.9	25	31
12	19	20	16	10	8.2	13	29	9.0	124	5.1	24	29
13	20	24	16	10	9.0	13	33	9.4	89	5.3	30	28
14	23	24	15	10	9.0	13	37	9.1	57	5.3	31	27
15	34	24	14	9.0	9.0	13	42	8.9	30	5.2	27	28
16	35	21	14	9.0	9.0	13	47	9.6	12	5.1	26	27
17	29	19	14	9.0	9.0	13	53	11	6.9	5.5	27	24
18	26	17	14	9.0	9.0	13	60	11	5.3	5.6	24	23
19	27	15	14	9.0	9.0	13	68	9.4	4.6	5.7	21	23
20	28	15	14	9.0	9.0	12	77	8.8	4.4	5.5	21	23
21	27	15	14	9.0	9.6	12	59	9.1	4.0	5.5	22	23
22	26	15	14	9.0	10	12	52	9.4	4.0	5.5	22	27
23	24	15	14	9.0	11	13	44	9.7	4.2	5.8	26	25
24	17	15	14	9.0	11	13	46	11	4.1	5.8	24	23
25	6.8	15	14	9.0	11	13	58	11	4.0	6.2	23	24
26	5.3	15	14	9.0	11	14	69	15	4.2	6.2	24	27
27	5.3	16	14	9.0	11	15	83	21	16	6.4	22	27
28	5.3	17	13	9.0	11	15	79	37	28	8.6	20	24
29	14	17	12	9.0	---	14	80	99	11	25	19	23
30	27	17	12	9.0	---	16	73	88	4.7	25	21	20
31	25	---	12	9.0	---	15	---	82	---	25	23	---
TOTAL	646.7	567	465	304.0	262.4	397	1289	787.3	2113.4	250.5	713	785
MEAN	20.9	18.9	15.0	9.81	9.37	12.8	43.0	25.4	70.4	8.08	23.0	26.2
MAX	35	24	17	12	11	16	83	99	261	25	31	31
MIN	5.3	15	12	9.0	7.6	11	15	8.8	4.0	4.4	18	20
AC-FT	1280	1120	922	603	520	787	2560	1560	4190	497	1410	1560

CAL YR 1980 TOTAL 26507.5 MEAN 72.4 MAX 684 MIN 5.3 AC-FT 52580
WTR YR 1981 TOTAL 8580.3 MEAN 23.5 MAX 261 MIN 4.0 AC-FT 17020

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO

LOCATION.--Lat 40°19'40", long 105°34'39", in SW¼NW¼ sec.9, T.4 N., R.73 W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft (210 m) downstream from east portal, and 4.5 mi (7.2 km) southwest of Estes Park.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only for August and September 1947).

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,250 ft (2,515 m), from topographic map. Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950, to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

REMARKS.--Records excellent. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation developments in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 mi (21.48 km) west of east portal.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--35 years, 272 ft^3/s (7.703 m^3/s), 197,100 acre-ft/yr (243 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft^3/s (16.8 m^3/s) June 30, 1962; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	127	314	288	357	527	504	427	157	382	545	433
2	146	.75	338	215	429	489	498	449	150	456	541	531
3	93	52	386	323	433	394	496	387	132	296	497	369
4	210	132	295	203	406	427	498	377	1.3	237	504	258
5	209	241	309	437	498	435	487	439	.70	283	538	268
6	228	318	287	387	496	415	496	438	.70	424	542	292
7	311	287	312	408	500	346	491	395	91	450	502	244
8	311	210	308	404	500	342	496	295	.90	393	514	299
9	302	191	282	346	500	415	500	289	.60	418	513	448
10	201	315	275	344	502	341	473	287	50	430	541	474
11	203	308	264	339	506	375	212	303	47	401	501	429
12	204	348	262	341	504	441	.00	288	131	480	464	431
13	319	379	238	344	498	415	.00	290	286	405	382	465
14	201	342	269	429	494	323	.00	293	404	478	460	415
15	200	500	351	433	473	339	.00	295	203	382	448	299
16	201	521	316	423	487	412	.00	296	183	497	407	451
17	200	506	263	305	491	415	.00	295	271	478	363	447
18	200	487	215	213	487	413	.00	291	302	428	454	548
19	201	408	261	502	487	402	.00	220	415	458	427	544
20	201	469	272	412	496	415	.00	257	390	537	331	491
21	201	294	219	483	487	323	.00	220	390	541	391	487
22	201	350	272	489	504	328	.00	218	390	539	480	413
23	201	340	265	489	500	413	.00	236	382	545	393	496
24	295	302	298	512	498	362	219	236	386	541	535	469
25	387	317	129	455	512	342	527	235	541	545	509	498
26	401	287	243	437	533	343	461	239	541	545	380	271
27	389	291	244	445	533	314	449	165	474	541	452	324
28	342	221	245	527	533	311	455	77	302	545	328	359
29	259	300	244	475	---	368	455	119	62	424	334	348
30	255	303	202	451	---	362	453	82	526	544	377	364
31	337	---	207	425	---	335	---	158	---	545	383	---
TOTAL	7650	9146.75	8385	12284	13644	11882	8170.00	8596	7210.20	14168	14036	12165
MEAN	247	305	270	396	487	383	272	277	240	457	453	406
MAX	401	521	386	527	533	527	527	449	541	545	545	548
MIN	93	.75	129	203	357	311	.00	77	.60	237	328	244
AC-FT	15170	18140	16630	24370	27060	23570	16210	17050	14300	28100	27840	24130

CAL YR 1980 TOTAL 84310.26 MEAN 230 MAX 548 MIN .00 AC-FT 167200
WTR YR 1981 TOTAL 127336.95 MEAN 349 MAX 548 MIN .00 AC-FT 252600

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Field data collected prior to 1974 water year are available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
DEC 18...	0855	263	47	52	6.7	3.0	8.5	19	5.6	1.1	2.0
JAN 22...	1025	415	50	53	6.5	3.0	8.1	20	5.9	1.2	2.4
FEB 25...	0850	533	55	56	7.1	3.0	8.8	22	7.0	1.2	2.5
MAR 25...	0910	512	56	57	7.0	2.5	8.9	23	6.9	1.4	2.5
APR 28...	0850	527	50	50	6.9	4.0	8.2	20	6.2	1.2	2.4
MAY 28...	1025	494	46	50	7.1	8.0	8.5	18	5.4	1.0	2.0
JUN 24...	1615	494	29	29	7.7	15.0	7.8	11	3.4	.6	1.5
JUL 22...	1200	538	38	41	7.9	16.0	7.3	14	4.4	.8	2.1
AUG 10...	1500	536	50	49	8.4	15.5	7.4	19	5.7	1.2	2.3
SEP 03...	0940	529	54	54	8.4	14.0	7.8	21	6.4	1.2	2.3

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC 18...	.2	.7	21	1.4	.3	.2	4.7	29	20.6	.08
JAN 22...	.2	.7	25	2.3	.3	.1	4.4	33	37.0	.09
FEB 25...	.2	.8	18	3.7	.2	.1	3.5	30	43.2	.07
MAR 25...	.2	.8	21	4.2	.2	.1	3.4	33	45.6	.09
APR 28...	.2	.6	19	1.0	.2	.2	3.6	27	38.4	.08
MAY 28...	.2	.8	24	1.6	.3	.1	2.4	28	37.3	.00
JUN 24...	.2	.4	12	3.1	.2	.1	2.5	19	25.3	.01
JUL 22...	.2	.4	10	2.0	.2	.1	2.9	19	27.6	.00
AUG 10...	.2	.6	23	1.0	.1	.1	3.0	28	40.5	.10
SEP 03...	.2	.7	20	1.0	.6	.1	3.2	28	40.0	.81

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 18...	.10	.27	.35	<1	0	40	0	<1	0	<3
JAN 22...	.10	.45	.54	--	--	80	--	4	--	--
FEB 25...	.07	.39	.46	--	--	20	--	2	--	--
MAR 25...	.09	.45	.54	<1	1	20	0	<1	1	<3
APR 28...	.07	1.50	1.6	--	--	20	--	3	--	--
MAY 28...	.00	1.10	1.1	<1	1	40	3	1	1	<3
JUN 24...	.02	.73	.74	<1	1	30	2	1	0	<3
JUL 22...	.01	.41	.41	--	--	30	--	<1	--	--
AUG 10...	.12	.65	.75	--	--	21	--	2	--	--
SEP 03...	.11	.55	1.4	<1	1	15	2	<1	0	<3

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'26", long 105°50'27", in SW¼NW¼ sec.19, T.3 N., R.75 W., Grand County, Hydrologic Unit 14010001, in gate house on left side of outlet gates near center of Shadow Mountain Dam on Colorado River, 1.0 mi (1.6 km) upstream from Pole Creek and 3.2 mi (5.1 km) south of town of Grand Lake.

DRAINAGE AREA.--185 mi² (479 km²).

PERIOD OF RECORD.--April 1947 to current year. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

REVISED RECORDS.--WSP 1149: 1947-48. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Supplementary water-stage recorder on Grand Lake, 800 ft (240 m) north of outlet gates and 2.9 mi (4.7 km) north of Shadow Mountain Dam.

REMARKS.--Lake is formed by earth and rockfill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft (22.0 hm³), including usable capacity of Grand Lake above elevation 8,365 ft (2,549.7 m) between elevation 8,347 ft (2,544.2 m), sill of outlet gate, and 8,367 ft (2,550.3 m), maximum water surface. Dead storage in Shadow Mountain Lake, 506 acre-ft (624,000 m³). Dead storage in Grand Lake not determined. Shadow Mountain Lake is used for stabilization of water level in Grand Lake. Usable capacity for diversion through Alva B. Adams tunnel, 3,660 acre-ft (4.51 hm³) between elevations 8,365 ft (2,549.7 m), crest of tunnel inlet, and 8,367 ft (2,550.3 m), maximum water surface. Figures given represent usable contents as determined from summation of individual contents of Grand Lake and Shadow Mountain Lake. Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,920 acre-ft (22.1 hm³) May 22, 1955, elevation, 8,367.03 ft (2,550.271 m); minimum since appreciable storage was first attained, 2,630 acre-ft (3.24 hm³) May 14, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,810 acre-ft (22.0 hm³) July 8, elevation, 8,366.99 ft (2,550.259 m); minimum, 16,730 acre-ft (20.6 hm³) May 22, June 14, elevation, 8,366.36 ft (2,550.067 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,366.75	17,410	-
Oct. 31	8,366.47	16,940	-470
Nov. 30	8,366.83	17,520	+580
Dec. 31	8,366.60	17,140	-380
CAL YR 1980		-	-150
Jan. 31	8,366.75	17,410	+270
Feb. 28	8,366.86	17,560	+150
Mar. 31	8,366.72	17,320	-240
Apr. 30	8,366.42	16,810	-510
May 31	8,366.59	17,160	+350
June 30	8,366.68	17,340	+180
July 31	8,366.70	17,270	-70
Aug. 31	8,366.53	17,000	-270
Sept. 30	8,366.48	16,940	-60
WTR YR 1981			-470

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'25", long 105°50'56", in SW¼NE¼ sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

PERIOD OF RECORD.--September 1970 to September 1975, March 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
16...	0720	790	52	6.8	9.0	2.5	K6	<2	.15	.69	.84	.030
NOV												
13...	0700	350	64	7.2	7.0	7.6	--	K5	--	.73	--	.040
DEC												
11...	0735	347	30	6.5	3.0	7.5	K8	<1	.10	.56	.66	.030
JAN												
15...	0730	339	68	7.8	3.0	10.8	K3	<1	.05	.89	.94	.050
FEB												
26...	0745	698	60	7.2	3.5	8.3	<1	<1	.09	1.00	1.1	.060
MAR												
31...	1215	334	60	6.8	4.0	8.4	K2	<1	.13	.54	.67	.030
APR												
30...	0730	361	63	7.7	5.5	6.4	K8	K1	.09	.69	.78	.030
JUN												
25...	0730	323	63	7.0	7.0	5.6	28	<2	.09	.65	.74	.020
JUL												
28...	1715	700	63	6.6	8.0	3.9	K1	<1	.15	.55	.70	.010
AUG												
21...	0830	364	58	7.2	8.5	3.5	K2	<1	.20	.54	.74	.030
SEP												
01...	0730	700	63	6.2	8.0	2.0	32	K1	.24	.00	.24	.030

K BASED ON NON-IDEAL COLONY COUNT.

COLORADO RIVER MAIN STEM

09018500 LAKE GRANBY NEAR GRANBY, CO

LOCATION.--Lat 40°10'55", long 105°52'14", in NW¼NE¼ sec.35, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, in Granby pumping plant at north shore of lake, 2.5 mi (4.0 km) north of Granby Dam on Colorado River and 7.5 mi (12.1 km) northeast of Granby.

DRAINAGE AREA.--312 mi^2 (808 km^2).

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1955, published as Granby Reservoir near Granby.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Prior to Apr. 9, 1951, nonrecording gage at dam at present datum.

REMARKS.--Lake is formed by earthfill dam and dikes. Regulation began Sept. 13, 1949, and usuable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft (574 hm^3) between elevations 8,186.00 ft (2,495.093 m), trash rack sill at outlet, and 8,280.00 ft (2,523.744 m), top of radial spillway gates. Dead storage, 74,190 acre-ft (91.5 hm^3). Figures given represent usable contents. Lake is used to store water for pumping to Shadow Mountain Lake for transmountain diversion through Alva B. Adams tunnel for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,900 acre-ft (574 hm^3) July 13, 1962, elevation, 8,280.05 ft (2,523.759 m); minimum since appreciable storage was attained, 13,070 acre-ft (16.1 hm^3) Apr. 16, 1978, elevation, 8,190.93 ft (2,496.595 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 410,000 acre-ft (506 hm^3) Oct. 1, elevation, 8,272.16 ft (2,521.354 m); minimum, 269,500 acre-ft (332 hm^3) Sept. 30, elevation, 8,250.10 ft (2,514.630).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,272.19	410,200	-
Oct. 31.	8,270.02	395,200	-15,000
Nov. 30.	8,267.68	379,400	-15,800
Dec. 31.	8,265.24	363,200	-16,200
CAL YR 1980		-	+70,800
Jan. 31.	8,261.44	338,600	-24,600
Feb. 28.	8,257.16	311,800	-26,800
Mar. 31.	8,253.47	289,400	-22,400
Apr. 30.	8,252.68	284,700	-4,700
May 31.	8,253.63	290,400	+5,700
June 30.	8,260.00	329,500	+39,100
July 31.	8,257.42	313,400	-16,100
Aug. 31.	8,253.48	289,500	-23,900
Sept. 30.	8,250.10	269,500	-20,000
WTR YR 1981			-140,700

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1973 to June 1975, June 1979, June 1980, and July 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FT)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL				
29...	0930	.1	17.5	7.4
29...	0931	5.0	17.5	7.3
29...	0932	10	17.5	7.4
29...	0933	20	17.0	6.8
29...	0934	25	15.5	6.5
29...	0935	30	13.0	5.0
29...	0936	40	12.0	4.9
29...	0937	50	8.5	4.2
29...	0938	60	7.5	3.9
29...	0939	70	7.5	4.0

DATE	TIME	SAMPLING DEPTH (FT)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL				
29...	0940	75	7.5	3.9
29...	0941	80	7.0	3.9
29...	0942	90	7.0	3.9
29...	0943	100	7.0	3.9
29...	0944	110	7.0	3.8
29...	0945	120	7.0	3.8
29...	0946	125	7.0	3.7
29...	0947	130	7.5	2.0

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
JUN										
25...	0940	.1	63	8.6	15.5	8.7	<2	<2	.00	.75
25...	0950	136	61	6.9	9.0	5.4	--	--	.13	.70
JUL										
29...	0930	.1	65	8.3	17.5	7.4	--	--	.09	.64
29...	0947	130	66	6.5	7.5	2.0	--	--	.14	1.30

DATE	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUN									
25...	.75	.010	0	1	3	1	0	.4	4600
25...	.83	.030	0	2	2	0	0	--	--
JUL									
29...	.73	<.010	1	2	2	0	0	.4	7500
29...	1.4	.290	0	3	2	1	10	--	--

09019000 COLORADO RIVER BELOW LAKE GRANBY, CO

LOCATION.--Lat 40°08'39", long 105°52'00", in SE¼SE¼ sec.11, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) downstream from Granby Dam, 1.0 mi (1.6 km) upstream from Walden Hollow, and 5.0 mi (8.0 km) northeast of Granby.

DRAINAGE AREA.--312 mi^2 (808 km^2).

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1955, published as "below Granby Reservoir."

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,050 ft (2,454 m), from topographic map.

REMARKS.--Records good. Seepage from Lake Granby, which varies from 2 to 8 ft^3/s (0.06 to 0.23 m^3/s) depending on elevation of Lake Granby, is not included in record. Flow completely regulated by Lake Granby (station 09018500). Several diversions for irrigation of hay meadows above station. Transmountain diversions by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years, 44.7 ft^3/s (1.266 m^3/s) 32,390 acre-ft/yr (39.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft^3/s (43.0 m^3/s) June 27-30, 1971, gage height, 3.95 ft (1.204 m); maximum gage height, 4.09 ft (1.247 m) July 3, 1973; minimum daily discharge, 5.1 ft^3/s (0.14 m^3/s) Oct. 8, 9, 1970, Sept. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft^3/s (2.21 m^3/s) at 1430 May 4 to 1345 May 7, gage height, 1.57 ft (0.479 m); minimum daily, 7.7 ft^3/s (0.22 m^3/s) Sept. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	19	20	21	20	20	21	53	75	72	20	10
2	21	19	20	21	20	20	21	71	75	72	20	8.0
3	21	19	20	21	19	20	21	71	75	72	19	8.0
4	21	19	20	21	19	20	21	74	75	72	19	8.0
5	22	19	20	21	19	20	21	78	75	72	19	7.7
6	22	19	20	21	19	20	21	78	75	71	19	7.7
7	22	19	20	21	19	20	21	77	76	70	19	7.7
8	21	19	20	21	19	20	20	76	76	70	19	7.7
9	20	19	20	21	19	20	20	76	74	70	19	8.0
10	20	18	20	21	19	20	20	76	70	70	19	8.0
11	20	18	20	21	19	20	20	76	70	70	19	8.0
12	20	18	20	21	19	20	20	76	70	70	19	8.0
13	20	18	20	21	19	20	20	76	70	70	19	8.4
14	20	18	20	20	19	20	20	75	70	67	19	8.4
15	20	18	20	20	19	20	20	75	70	69	19	8.4
16	20	18	20	20	19	20	20	75	70	68	19	8.4
17	20	18	20	20	19	21	20	75	70	68	16	8.0
18	20	18	20	20	19	21	20	75	70	69	12	8.0
19	20	18	20	20	19	21	20	72	69	69	12	8.0
20	20	19	20	20	19	21	20	71	69	69	12	8.0
21	20	20	20	20	19	21	20	73	69	69	12	13
22	20	20	20	20	19	21	20	75	71	67	12	18
23	20	20	20	20	19	21	20	75	72	64	12	18
24	20	20	20	20	19	21	20	75	72	63	13	18
25	20	20	21	20	19	21	19	75	72	63	13	19
26	19	20	21	20	19	21	19	75	72	63	13	20
27	19	20	21	20	20	21	19	75	72	62	13	20
28	19	20	20	20	20	21	20	75	72	47	13	21
29	19	20	21	20	---	21	20	75	72	40	13	22
30	19	20	21	20	---	21	20	75	72	40	13	22
31	19	---	21	20	---	21	---	75	---	27	13	---
TOTAL	625	570	626	633	536	635	604	2299	2160	2005	498	353.4
MEAN	20.2	19.0	20.2	20.4	19.1	20.5	20.1	74.2	72.0	64.7	16.1	11.8
MAX	22	20	21	21	20	21	21	78	76	72	20	22
MIN	19	18	20	20	19	20	19	53	69	27	12	7.7
AC-FT	1240	1130	1240	1260	1060	1260	1200	4560	4280	3980	988	701

CAL YR 1980 TOTAL 12658.1 MEAN 34.6 MAX 96 MIN 8.8 AC-FT 25110
WTR YR 1981 TOTAL 11544.4 MEAN 31.6 MAX 78 MIN 7.7 AC-FT 22900

09019500 COLORADO RIVER NEAR GRANBY, CO

LOCATION.--Lat 40°07'15", long 105°54'00", in SW¼NW¼ sec.22, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Willow Creek, and 3.2 mi (5.1 km) northeast of Granby.

DRAINAGE AREA.--323 mi² (837 km²).

PERIOD OF RECORD.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953. May 1961 to current year (irrigation season only). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,960 ft (2,426 m), from topographic map. June 10, 1908, to Sept. 30, 1911, and May 12 to June 10, 1934, nonrecording gage, at site 300 ft (91 m) upstream at different datums. June 11, 1934, to Sept. 30, 1953, water-stage recorder at present site and datum.

REMARKS.--Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows above station. Transmountain diversions above station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) July 1, 1973, gage height, 4.25 ft (1.295 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 21, 1981.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft³/s (116 m³/s) June 20, 1909, gage height, 5.5 ft (1.68 m), site and datum then in use; minimum daily, 6.6 ft³/s (0.19 m³/s) Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft³/s (0.57 m³/s) Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 81 ft³/s (2.29 m³/s) at 0900 July 14, gage height, 1.07 ft (0.326 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	38	56	55	22	14
2							---	52	54	57	22	12
3							---	55	56	56	24	12
4							---	55	55	54	23	12
5							---	56	55	54	23	12
6							---	56	55	52	23	11
7							---	55	57	52	21	11
8							---	55	58	52	21	12
9							---	55	57	52	22	12
10							---	54	54	51	21	12
11							---	55	50	52	21	12
12							---	56	52	55	22	11
13							---	57	55	52	22	11
14							---	55	55	61	22	11
15							---	55	55	56	24	11
16							---	57	54	49	23	11
17							---	65	52	50	22	11
18							25	61	52	50	18	11
19							25	54	52	51	18	11
20							25	49	50	51	18	11
21							24	52	51	52	18	9.6
22							24	54	52	51	18	11
23							24	55	52	49	17	11
24							23	56	51	49	17	11
25							22	56	54	50	17	11
26							22	57	55	48	17	11
27							21	54	55	47	17	11
28							22	54	57	46	16	11
29							22	62	56	42	16	11
30							22	57	55	41	16	11
31							---	56	---	31	16	---
TOTAL							---	1708	1622	1568	617	339.6
MEAN							---	55.1	54.1	50.6	19.9	11.3
MAX							---	65	58	61	24	14
MIN							---	38	50	31	16	9.6
AC-FT							---	3390	3220	3110	1220	674

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, in shaft house near right end of Willow Creek Dam, 3.2 mi (5.1 km) upstream from mouth, and 4.2 mi (6.8 km) north of Granby.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earth and rockfill dam; storage began March 1953. Dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft (11.2 hm³) between elevations 8,077.00 ft (2,461.870 m), trash rack sill at outlet, and 8,130.00 ft (2,478.024 m), crest of spillway. Dead storage, 1,490 acre-ft (1.84 hm³). Figures given represent usable contents. Water is pumped to Lake Granby for transmountain diversion for irrigation and power in South Platte River basin. Records are furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,060 acre-ft (11.2 hm³) Aug. 3, 1953, elevation, 8,129.99 ft (2,478.021 m); minimum since first filling to spillway, 1,470 acre-ft (1.81 hm³) Apr. 24, 1974, elevation, 8,090.14 ft (2,465.875 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,640 acre-ft (10.7 hm³) Aug. 30,31, elevation, 8,128.55 ft (2,477.582 m); minimum, 5,630 acre-ft (6.94 hm³) Nov. 19, elevation, 8,116.48 ft (2,473.903 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,125.39	7,750	-
Oct. 31	8,127.18	8,240	+490
Nov. 30	8,116.96	5,730	-2,510
Dec. 31	8,118.66	6,100	+370
CAL YR 1980		-	-10
Jan. 31	8,118.95	6,160	+60
Feb. 28	8,119.38	6,260	+100
Mar. 31	8,120.45	6,510	+250
Apr. 30	8,117.36	5,820	-690
May 31	8,124.54	7,530	+1,710
June 30	8,123.39	7,230	-300
July 31	8,125.25	7,710	+480
Aug. 31	8,128.55	8,640	+930
Sept. 30	8,126.35	8,010	-630
WTR YR 1981			+260

09021000 WILLOW CREEK BELOW WILLOW CREEK RESERVOIR, CO

LOCATION.--Lat 40°08'45", long 105°56'22", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 1,000 ft (300 m) downstream from Willow Creek Dam, 0.8 mi (1.3 km) upstream from Bunte Highline Canal diversion, 4.0 mi (6.4 km) upstream from mouth, and 4.0 mi (6.4 km) north of Granby.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--August 1953 to current year.

REVISED RECORDS.--WSP 1563: 1954-55.

GAGE.--Water-stage recorder and 10 ft (3 m) Parshall flume with overflow weirs. Datum of gage is 8,023.64 ft (2,445.605 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Supplementary water-stage recorder and Parshall flume on McQueary ditch 500 ft (150 m) downstream from point of diversion at Willow Creek Dam. Datum of gage is 8,031.68 ft (2,448.056 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for winter period, which are poor. Records show combined flow of creek and McQueary ditch. Flow completely regulated by Willow Creek Reservoir (station 09020700). Diversions above station for irrigation of hay meadows. McQueary ditch diverts at Willow Creek Dam for irrigation below station. Diversion above station from Willow Creek Reservoir by Willow Creek Pump Canal to Lake Granby as part of the Colorado-Big Thompson project (see table below for figures of diversion). Prior to Oct. 1, 1962, records include priming and waste water from pump canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, by Willow Creek Pump Canal; furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE (COMBINED FLOW).--28 years, 28.5 ft³/s (0.807 m³/s), 20,650 acre-ft/yr (25.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 867 ft³/s (24.6 m³/s) June 7, 1957, gage height, 4.84 ft (1.475 m); no flow Sept. 17-24, 1963, May 1, 1965, May 2-10, Aug. 16-21, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s (1.53 m³/s) at 0700 May 18, gage height, 3.12 ft (0.951 m); minimum daily, 0.08 ft³/s (0.002 m³/s) Aug. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	6.6	6.6	6.6	6.6	6.6	7.0	48	50	36	.23	.14
2	8.4	6.6	6.6	6.6	6.6	6.6	7.0	48	51	37	.23	.14
3	8.4	6.6	6.6	6.6	6.6	6.6	7.0	49	51	37	.23	.14
4	8.4	6.6	6.6	6.6	6.6	6.6	7.0	49	48	37	.23	.14
5	8.4	6.6	6.6	6.6	6.6	6.6	7.0	49	44	37	.23	.14
6	8.4	6.6	6.6	6.6	6.6	6.6	7.0	49	44	35	.23	.14
7	7.7	6.6	6.6	6.6	6.6	6.6	7.0	51	44	35	.23	.14
8	7.7	6.6	6.6	6.6	6.6	6.6	7.0	52	45	35	.23	.33
9	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	45	35	.23	.33
10	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	44	35	.23	.33
11	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	47	35	.23	.33
12	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	50	36	.23	.33
13	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	50	36	.23	.33
14	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	50	36	.23	.33
15	7.0	6.6	6.6	6.6	6.6	6.6	7.0	52	51	36	.14	.33
16	7.0	6.6	6.6	6.6	6.6	6.6	7.0	53	51	36	.14	.33
17	7.0	6.6	6.6	6.6	6.6	6.6	14	53	51	31	.14	.33
18	7.0	6.6	6.6	6.6	6.6	6.6	20	53	50	29	.14	.33
19	7.0	6.6	6.6	6.6	6.6	6.6	20	52	51	29	.14	.23
20	7.0	6.6	6.6	6.6	6.6	6.6	24	53	51	29	.14	.23
21	6.6	6.6	6.6	6.6	6.6	7.0	30	52	51	29	.14	.23
22	6.6	6.6	6.6	6.6	6.6	7.0	30	52	49	23	.14	.23
23	6.6	6.6	6.6	6.6	6.6	7.0	30	52	48	21	.14	.33
24	6.6	6.6	6.6	6.6	6.6	7.0	30	52	39	21	.14	.33
25	6.6	6.6	6.6	6.6	6.6	7.0	29	52	36	21	.14	.33
26	6.6	6.6	6.6	6.6	6.6	7.0	29	53	36	21	.14	.33
27	6.6	6.6	6.6	6.6	6.6	7.0	37	52	36	21	.14	.33
28	6.6	6.6	6.6	6.6	6.6	7.0	43	52	36	21	.08	.33
29	6.6	6.6	6.6	6.6	---	7.0	43	52	36	21	.08	.33
30	6.6	6.6	6.6	6.6	---	7.0	46	52	36	21	.14	.33
31	6.6	---	6.6	6.6	---	7.0	---	52	---	6.1	.14	---
TOTAL	219.6	198.0	204.6	204.6	184.8	209.0	537.0	1596	1371	918.1	5.48	8.17
MEAN	7.08	6.60	6.60	6.60	6.60	6.74	17.9	51.5	45.7	29.6	.18	.27
MAX	8.4	6.6	6.6	6.6	6.6	7.0	46	53	51	37	.23	.33
MIN	5.6	6.6	6.6	6.6	6.6	6.6	7.0	48	36	6.1	.08	.14
AC-FT	436	393	406	406	367	415	1070	3170	2720	1820	11	16
a	0	2800	0	0	0	0	1940	1240	3590	0	0	1390

CAL YR 1980 TOTAL 8709.05 MEAN 23.8 MAX 392 MIN .08 AC-FT 17270
WTR YR 1981 TOTAL 5656.35 MEAN 15.5 MAX 53 MIN .08 AC-FT 11220

NOTE.--NO GAGE-HEIGHT RECORD OCT. 6 TO APR. 17.

a DIVERSIONS, IN ACRE-FEET, BY WILLOW CREEK PUMP CANAL, FURNISHED BY U.S. BUREAU OF RECLAMATION.

09024000 FRASER RIVER NEAR WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE¼ sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (152 m) downstream from bridge on U.S. Highway 40, 1.1 mi (1.8 km) northwest of Winter Park, 2.0 mi (3.2 km) upstream from Vasquez Creek, 3.5 mi (5.6 km) downstream from point of diversion for Moffat water tunnel, and 3.9 mi (6.3 km) southeast of Fraser.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

REVISED RECORDS.--WSP 929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,906.23 ft (2,714.619 m) Colorado State Highway Datum (levels by U.S. Geological Survey). Sept. 23, 1910, to May 12, 1916, nonrecording gage at trail bridge 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s (23.2 m³/s) June 13, 1918, gage height, 2.9 ft (0.88 m); minimum daily determined, 2 ft³/s (0.06 m³/s) Mar. 30, Apr. 9, 1912, Jan 23, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 80 ft³/s (2.27 m³/s) at 2400 June 7, gage height, 1.44 ft (0.439 m); maximum gage height, 1.62 ft (0.494 m) Dec. 30 (backwater from ice); minimum daily discharge, 3.1 ft³/s (0.088 m³/s) Feb. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.0	4.0	3.7	3.2	4.8	6.0	8.7	13	7.3	8.3	7.5
2	3.6	4.0	4.0	3.7	3.3	4.8	6.4	8.5	13	8.4	7.9	7.2
3	3.6	4.0	4.0	3.7	3.3	4.8	6.4	13	14	8.0	7.2	7.9
4	3.6	4.0	4.0	3.7	3.3	4.7	6.4	9.5	17	6.9	7.1	7.1
5	3.6	4.1	4.0	3.7	3.3	4.8	6.4	8.5	15	6.7	7.5	7.4
6	3.7	4.0	4.0	3.7	3.2	5.0	7.0	8.3	16	8.5	7.4	7.4
7	3.6	4.1	4.0	3.7	3.3	5.4	7.6	8.0	24	10	7.4	7.5
8	3.6	4.0	4.0	3.7	3.2	5.4	7.6	7.6	42	8.4	7.5	8.4
9	3.6	4.0	3.9	3.7	3.2	5.4	7.6	7.5	36	8.3	7.6	8.5
10	3.6	4.1	4.0	3.7	3.2	5.4	8.2	7.8	29	7.9	7.9	8.5
11	3.6	4.2	3.8	3.7	3.2	5.4	9.0	7.9	26	6.9	7.5	8.3
12	3.6	3.9	3.8	3.7	3.2	5.4	9.0	8.0	21	8.7	8.3	6.2
13	3.6	4.0	3.8	3.7	3.2	5.4	9.0	8.5	16	8.2	12	6.8
14	3.6	4.0	3.8	3.7	3.1	5.4	8.8	8.2	14	7.2	6.9	8.6
15	4.0	4.0	3.8	3.7	3.1	5.4	8.8	8.0	15	7.7	7.4	6.4
16	4.0	4.0	3.8	3.7	3.6	5.4	9.6	8.0	13	6.9	7.2	5.2
17	4.0	4.0	3.8	3.7	3.9	5.4	10	8.2	12	8.2	6.8	5.0
18	3.9	4.0	3.8	3.6	4.2	5.4	12	9.2	12	7.8	6.9	4.7
19	4.2	4.0	3.8	3.6	4.2	5.4	12	11	11	8.7	9.0	5.0
20	4.1	4.0	3.8	3.6	4.2	5.4	11	12	10	8.3	8.9	5.2
21	4.0	4.0	3.8	3.6	4.5	5.4	11	11	9.8	7.9	8.8	5.2
22	3.8	4.0	3.8	3.6	4.8	5.7	9.3	11	9.0	8.1	9.5	5.2
23	4.0	4.0	3.8	3.7	4.8	6.0	9.2	12	8.3	8.4	10	5.2
24	4.0	4.2	3.8	3.7	4.8	6.0	11	12	8.1	8.0	9.4	5.3
25	4.0	4.0	3.8	3.7	4.8	6.0	11	12	8.1	7.9	9.4	5.2
26	4.0	4.0	3.7	3.7	4.8	6.0	11	12	7.7	7.7	9.1	5.2
27	4.0	4.0	3.7	3.7	4.8	6.0	9.9	12	7.9	7.7	8.8	5.1
28	4.0	4.0	3.6	3.7	4.8	6.0	10	12	7.9	7.7	8.6	5.0
29	4.0	4.0	3.7	3.2	---	6.0	9.4	16	7.5	7.6	8.4	5.0
30	4.0	4.0	3.7	3.2	---	6.0	9.1	14	6.9	8.2	7.8	5.0
31	4.0	---	3.7	3.2	---	6.0	---	13	---	8.3	7.6	---
TOTAL	118.6	120.6	119.0	112.7	106.5	169.6	269.7	313.4	450.2	246.5	254.1	190.2
MEAN	3.83	4.02	3.84	3.64	3.80	5.47	8.99	10.1	15.0	7.95	8.20	6.34
MAX	4.2	4.2	4.0	3.7	4.8	6.0	12	16	42	10	12	8.6
MIN	3.6	3.9	3.6	3.2	3.1	4.7	6.0	7.5	6.9	6.7	6.8	4.7
AC-FT	235	239	236	224	211	336	535	622	893	489	504	377

CAL YR 1980 TOTAL 7985.1 MEAN 21.8 MAX 268 MIN 3.6 AC-FT 15840
WTR YR 1981 TOTAL 2471.1 MEAN 6.77 MAX 42 MIN 3.1 AC-FT 4900

09025000 VASQUEZ CREEK NEAR WINTER PARK, CO

LOCATION.--Lat 39°55'13", long 105°47'05", in NE¼NW¼ sec.33, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 30 ft (9.1 m) downstream from bridge on U.S. Highway 40, 0.2 mi (0.3 km) upstream from mouth, 2.5 mi (4.0 km) northwest of Winter Park, 2.5 mi (4.0 km) southeast of Fraser, and 4.5 mi (7.2 km) downstream from Moffat water tunnel diversion.

DRAINAGE AREA.--27.8 mi² (72.0 km²).

PERIOD OF RECORD.--June to August 1907, July to November 1909, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, are unreliable and should not be used. Published as Vasquez River at lower station, near Fraser 1907-9, and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft (2,672.633 m) National Geodetic Vertical Datum of 1929. June 1, 1907, to Oct. 31, 1909, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s (13.3 m³/s) June 10, 1952, gage height, 3.13 ft (0.954 m), from rating curve extended above 340 ft³/s (9.6 m³/s); no flow at times in 1944, 1946, 1956, 1960, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s (1.19 m³/s) at 2000 June 7, gage height, 2.12 ft (0.646 m), maximum gage height, 2.96 ft (0.902 m) Nov. 22 (backwater from ice); minimum daily discharge, 2.9 ft³/s (0.082 m³/s) Mar. 16-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	15	4.8	4.3	3.8	3.5	3.5	9.2	15	10	12	11
2	5.3	16	4.7	4.0	3.5	3.5	3.8	9.1	14	12	11	10
3	5.2	14	4.7	4.0	3.5	3.3	3.5	13	10	11	11	11
4	4.4	12	4.7	3.8	3.5	3.3	3.3	10	14	9.3	12	9.7
5	4.4	9.4	4.7	3.5	3.3	3.5	3.5	8.9	10	9.3	11	9.9
6	4.8	5.8	4.7	3.8	3.3	3.5	3.8	8.4	7.0	12	10	10
7	8.7	5.5	4.7	3.8	3.3	3.5	4.0	8.1	14	13	10	9.6
8	12	5.4	4.7	3.3	3.5	3.3	3.8	8.0	13	14	10	9.7
9	13	5.3	4.6	3.3	3.5	3.3	4.0	7.2	11	11	10	9.9
10	13	5.7	4.6	3.5	3.5	3.1	4.3	6.3	11	11	10	10
11	12	6.1	4.6	3.5	3.3	3.1	4.6	7.1	12	12	10	9.8
12	12	5.2	4.6	3.5	3.3	3.3	4.9	7.0	11	12	11	9.7
13	13	5.2	4.3	3.5	3.3	3.3	4.9	7.1	14	11	11	9.7
14	12	4.8	4.3	3.5	3.3	3.1	4.9	7.0	14	11	11	9.4
15	13	4.8	4.6	3.5	3.3	3.3	5.2	9.3	13	11	11	4.7
16	13	4.8	4.6	3.5	3.1	2.9	5.5	15	12	13	12	4.0
17	12	4.8	4.6	3.5	3.3	2.9	5.9	15	11	13	11	3.8
18	14	4.8	4.3	3.5	3.3	2.9	7.1	15	11	12	10	4.2
19	14	4.8	4.0	3.5	3.3	2.9	8.7	15	11	13	10	4.2
20	13	4.8	4.0	3.5	3.3	3.1	7.6	16	11	12	10	4.1
21	12	4.8	4.0	3.5	3.3	3.1	7.6	16	11	13	10	4.3
22	12	4.8	4.3	3.5	3.3	3.1	7.2	16	10	12	11	4.2
23	11	4.8	4.6	3.7	3.5	3.1	7.3	16	10	12	11	4.2
24	13	4.8	4.3	3.7	3.3	3.1	8.2	16	11	12	9.9	4.2
25	17	4.8	4.3	3.5	3.5	3.3	8.0	16	10	9.8	10	4.1
26	16	4.8	4.0	3.5	3.5	3.3	8.8	16	10	9.9	9.8	4.2
27	14	4.8	4.0	3.5	3.5	3.3	8.1	17	11	10	9.7	4.1
28	14	4.8	4.0	3.5	3.5	3.3	8.5	16	11	9.1	9.3	4.1
29	14	4.8	4.0	3.5	---	3.3	8.9	19	11	9.2	9.4	4.1
30	14	4.8	4.0	3.5	---	3.3	9.7	16	10	11	9.6	4.2
31	16	---	4.0	3.5	---	3.3	---	16	---	12	10	---
TOTAL	356.2	192.2	136.3	111.2	94.9	100.1	179.1	381.7	344.0	352.6	323.7	206.1
MEAN	11.5	6.41	4.40	3.59	3.39	3.23	5.97	12.3	11.5	11.4	10.4	6.87
MAX	17	16	4.8	4.3	3.8	3.5	9.7	19	15	14	12	11
MIN	4.4	4.8	4.0	3.3	3.1	2.9	3.3	6.3	7.0	9.1	9.3	3.8
AC-FT	707	381	270	221	188	199	355	757	682	699	642	409

CAL YR 1980 TOTAL 7077.8 MEAN 19.3 MAX 264 MIN 3.1 AC-FT 14040
WTR YR 1981 TOTAL 2778.1 MEAN 7.61 MAX 19 MIN 2.9 AC-FT 5510

FRASER RIVER BASIN

09025400 ELK CREEK NEAR FRASER, CO

LOCATION.--Lat 39°55'09", long 105°49'31", in SE¼NW¼ sec.31, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 100 ft (30 m) upstream from unnamed tributary 1,150 ft (350 m) downstream from West Elk Creek, 2.0 mi (3.2 km) southwest of Fraser, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--7.15 mi^2 (18.52 km^2).

PERIOD OF RECORD.--September 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,805 ft (2,684 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversions above station to Moffat water tunnel. Diversions for irrigation of about 100 acres (405,000 m^2) of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88 ft^3/s (2.49 m^3/s) May 8, 1974, gage height, 2.67 ft (0.814 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Jan. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 7.3 ft^3/s (0.21 m^3/s) at 1400 Apr. 19, gage height, 1.68 ft (0.512 m), maximum gage height 2.15 ft (0.655 m) at 1000 Oct. 30 (backwater from ice); minimum daily discharge 0.30 ft^3/s (0.008 m^3/s) Feb. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.1	.45	.40	.35	.40	.45	1.9	2.0	1.9	1.3	.93
2	.62	1.1	.45	.40	.35	.40	.45	1.9	1.8	1.8	1.2	.72
3	.62	1.1	.45	.40	.35	.40	.45	3.7	1.9	1.7	.99	1.3
4	.63	1.1	.45	.40	.35	.40	.45	3.4	2.7	1.6	.99	1.1
5	.70	1.0	.45	.40	.35	.40	.45	2.4	1.7	1.5	.70	1.1
6	.67	.90	.45	.40	.35	.40	.50	2.4	1.4	1.5	.58	1.1
7	.61	.82	.45	.40	.35	.40	.55	2.0	.97	1.5	.67	1.0
8	.62	.73	.45	.40	.35	.40	.65	1.7	1.0	1.5	.55	1.0
9	.62	.70	.45	.40	.35	.40	.80	1.8	.90	1.5	.61	1.0
10	.66	.70	.45	.40	.35	.40	.90	1.6	.87	1.6	.63	1.0
11	.66	.70	.40	.40	.30	.40	1.1	1.6	.81	1.6	.59	1.0
12	.66	.71	.40	.40	.30	.40	1.2	1.8	.77	1.7	.64	1.0
13	.66	.63	.40	.40	.35	.40	1.6	1.8	1.5	1.7	1.2	1.0
14	.66	.60	.40	.40	.35	.40	1.1	1.7	1.7	1.6	1.1	1.0
15	.78	.60	.40	.40	.35	.45	1.2	1.8	1.7	1.5	.93	1.0
16	.80	.50	.40	.40	.35	.45	1.6	1.6	1.6	1.4	1.1	.95
17	.81	.50	.40	.40	.35	.45	2.2	1.9	1.4	1.4	1.1	.95
18	.85	.50	.40	.40	.35	.45	3.2	3.0	1.3	1.5	.74	.90
19	.85	.50	.40	.40	.35	.45	4.2	4.1	1.2	1.5	.62	.90
20	.90	.50	.40	.40	.35	.45	2.7	3.8	1.3	1.5	.58	.90
21	1.0	.50	.40	.40	.35	.45	2.2	3.7	1.4	1.5	.58	.90
22	1.1	.50	.40	.40	.35	.45	2.0	3.3	1.4	1.5	1.0	.90
23	1.2	.50	.40	.40	.35	.45	2.0	3.2	1.4	1.5	1.6	.90
24	1.1	.50	.40	.40	.35	.45	2.4	2.8	1.4	1.5	.68	.90
25	1.0	.45	.40	.40	.35	.45	2.7	2.4	1.5	1.5	.73	.90
26	1.0	.45	.40	.35	.40	.45	2.8	2.4	1.9	1.5	.59	.90
27	1.0	.45	.40	.35	.40	.45	2.7	2.4	2.5	1.6	.74	.90
28	1.0	.45	.40	.35	.40	.45	2.4	2.2	3.7	1.4	.66	.90
29	1.0	.45	.40	.35	---	.45	2.5	4.5	3.3	1.2	.55	.95
30	1.1	.45	.40	.35	---	.45	2.2	2.8	2.1	.89	.82	.95
31	1.1	---	.40	.35	---	.45	---	2.3	---	.91	.80	---
TOTAL	25.60	19.69	12.90	12.10	9.85	13.25	49.65	77.9	49.12	46.50	25.57	28.95
MEAN	.83	.66	.42	.39	.35	.43	1.66	2.51	1.64	1.50	.82	.97
MAX	1.2	1.1	.45	.40	.40	.45	4.2	4.5	3.7	1.9	1.6	1.3
MIN	.61	.45	.40	.35	.30	.40	.45	1.6	.77	.89	.55	.72
AC-FT	51	39	26	24	20	26	98	155	97	92	51	57

CAL YR 1980 TOTAL 1436.01 MEAN 3.92 MAX 45 MIN .31 AC-FT 2850
WTR YR 1981 TOTAL 371.08 MEAN 1.02 MAX 4.5 MIN .30 AC-FT 736

NOTE.--NO GAGE-HEIGHT RECORD DEC. 7 TO APR. 13, JULY 1-30.

09026500 ST. LOUIS CREEK NEAR FRASER, CO

LOCATION.--Lat 39°54'36", long 105°52'40", in SE¼SW¼ sec.34, T.1 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 300 ft (91 m) downstream from West St. Louis Creek and 4.1 mi (6.6 km) southwest of Fraser.

DRAINAGE AREA.--32.9 mi² (85.2 km²).

PERIOD OF RECORD.--October 1933 to current year. Prior to August 1934, monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,980.17 ft (2,737.156 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s (13.3 m³/s) June 15, 1952, gage height, 2.89 ft (0.881 m); maximum gage height, 3.21 ft (0.978 m) June 10, 1952 (backwater from log on control); minimum discharge not determined, probably occurred during January or February 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60 ft³/s (1.70 m³/s) at 1730 June 9, gage height, 1.47 ft (0.448 m); maximum gage height, 1.67 ft (0.509 m) Nov. 22 (backwater from ice); minimum daily discharge, 3.9 ft³/s (0.11 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	11	7.9	6.5	6.0	6.0	7.6	12	22	26	15	13
2	8.1	11	7.9	6.3	6.0	6.0	7.6	13	22	28	15	10
3	8.1	9.6	7.9	6.3	6.0	6.0	7.6	19	26	27	14	11
4	8.2	8.4	7.9	6.3	6.0	6.0	7.6	16	28	26	14	9.6
5	7.9	8.5	7.9	6.3	6.0	6.0	7.6	13	21	26	13	9.4
6	8.2	8.3	7.9	6.3	6.0	6.0	8.4	11	22	26	13	11
7	12	8.4	7.9	6.3	6.0	6.0	8.4	11	28	26	12	9.7
8	12	8.3	7.5	6.3	6.0	6.0	8.4	10	27	29	12	10
9	12	8.1	7.5	6.3	6.0	6.0	8.4	10	40	30	13	9.9
10	12	8.1	7.2	6.3	6.0	6.0	8.4	9.5	34	29	12	12
11	11	8.6	7.2	6.3	5.6	6.0	10	11	33	29	13	11
12	11	7.9	7.2	6.3	5.6	6.0	10	12	33	31	14	9.3
13	12	7.8	7.2	6.3	5.6	6.4	10	11	32	28	14	9.2
14	12	7.8	6.8	6.3	6.0	6.4	9.9	11	31	26	13	8.8
15	12	7.7	6.8	6.3	6.0	6.4	10	12	30	25	13	7.0
16	11	7.7	6.8	6.3	6.0	6.4	11	14	30	26	12	6.3
17	11	7.6	6.8	6.3	6.0	6.4	11	14	31	26	12	6.2
18	11	7.6	6.8	6.3	6.0	6.4	13	14	31	26	11	6.1
19	11	7.6	6.8	6.3	6.0	6.4	14	14	31	27	10	6.0
20	12	7.6	6.8	6.0	6.0	6.4	13	17	34	27	10	6.0
21	8.2	7.5	6.5	6.0	6.0	6.4	12	18	36	26	9.9	5.7
22	8.6	7.5	6.5	6.0	6.0	6.4	12	17	32	26	12	4.4
23	9.6	7.4	6.8	6.0	6.0	6.4	12	17	30	28	11	5.5
24	15	7.4	6.5	6.0	6.0	6.4	14	16	29	27	10	4.6
25	15	7.4	6.5	6.0	6.0	6.4	15	17	29	27	10	3.9
26	10	7.2	6.5	6.0	6.0	6.4	15	21	28	27	9.7	5.2
27	10	7.2	6.5	6.0	6.0	7.0	16	28	28	29	9.6	5.4
28	18	7.2	6.8	6.0	6.0	7.0	16	23	29	26	9.1	6.1
29	13	7.5	6.5	6.0	---	7.0	13	27	27	21	9.1	6.3
30	12	7.9	6.5	6.0	---	7.0	13	23	26	17	9.6	5.8
31	11	---	6.5	6.0	---	7.0	---	22	---	16	9.6	---
TOTAL	340.4	241.8	218.8	191.9	166.8	196.6	329.9	483.5	880	814	364.6	234.4
MEAN	11.0	8.06	7.06	6.19	5.96	6.34	11.0	15.6	29.3	26.3	11.8	7.81
MAX	18	11	7.9	6.5	6.0	7.0	16	28	40	31	15	13
MIN	7.5	7.2	6.5	6.0	5.6	6.0	7.6	9.5	21	16	9.1	3.9
AC-FT	675	480	434	381	331	390	654	959	1750	1610	723	465

CAL YR 1980 TOTAL 8217.0 MEAN 22.5 MAX 194 MIN 4.1 AC-FT 16300
WTR YR 1981 TOTAL 4462.7 MEAN 12.2 MAX 40 MIN 3.9 AC-FT 8850

NOTE.--NO GAGE-HEIGHT RECORD JAN. 1 TO APR. 13.

09032000 RANCH CREEK NEAR FRASER, CO

LOCATION.--Lat 39°57'00", long 105°45'54", in NW¼NE¼ sec.22, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 450 ft (137 m) downstream from Middle Fork and 2.7 mi (4.3 km) east of Fraser.

DRAINAGE AREA.--19.9 mi² (51.5 km²).

PERIOD OF RECORD.--August 1934 to current year. Records since May 15, 1949, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Altitude of gage is 8,685 ft (2,647 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station for irrigation of hay meadows along Fraser River. Transmountain diversion above station to Moffat water tunnel (not furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 402 ft³/s (11.2 m³/s) June 28, 1957, gage height, 3.72 ft (1.134 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Sept. 21, Oct. 6, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 144 ft³/s (4.08 m³/s) at 2200 June 8, gage height, 2.58 ft (0.786 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Feb. 15-17, Mar. 1-3, 19-25, 29-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.5	3.6	3.7	2.7	2.1	2.2	6.4	9.0	5.0	5.7	5.9
2	4.1	3.4	3.7	3.7	2.7	2.1	2.6	6.7	8.4	5.7	5.0	5.1
3	3.7	3.3	3.5	3.5	2.7	2.1	2.5	10	8.4	5.7	4.7	7.5
4	3.6	3.2	3.4	3.2	2.7	2.2	2.2	7.6	34	4.9	4.6	5.3
5	3.4	3.0	3.4	3.2	2.5	2.2	2.3	5.0	14	4.8	4.2	5.4
6	3.5	3.0	3.7	3.2	2.5	2.8	2.3	5.7	28	6.1	4.9	5.5
7	3.4	3.2	3.7	3.3	2.5	2.7	2.4	5.7	44	5.9	4.8	5.0
8	3.3	4.2	3.7	3.0	2.2	2.7	2.3	5.2	61	6.1	4.7	4.7
9	3.2	3.9	3.5	2.9	2.2	2.5	2.7	5.4	62	5.8	4.7	4.5
10	3.2	4.3	3.4	2.8	2.2	2.4	3.3	5.7	27	6.1	4.8	4.8
11	3.2	4.3	3.3	2.7	2.2	2.2	3.3	5.4	16	5.7	4.9	4.7
12	3.5	4.3	3.2	2.7	2.2	2.2	3.5	5.0	9.7	6.0	5.4	4.2
13	3.8	4.3	3.2	2.7	2.2	2.2	3.6	5.2	4.9	5.9	6.1	4.4
14	3.7	4.2	3.3	2.7	2.2	2.2	3.4	5.0	5.6	5.4	4.9	4.1
15	3.7	4.1	3.2	2.7	2.1	2.2	3.8	5.2	5.6	5.1	5.0	4.2
16	3.7	4.0	3.2	2.7	2.1	2.2	4.4	5.4	6.1	5.2	5.6	4.1
17	3.7	4.0	3.2	2.9	2.1	2.2	5.2	5.4	4.3	4.9	5.8	3.7
18	3.7	4.0	3.2	2.9	2.2	2.2	6.6	6.7	3.7	4.9	4.8	3.8
19	3.7	4.0	3.2	3.1	2.2	2.1	8.8	7.6	4.0	4.7	4.1	3.9
20	3.7	4.0	3.4	3.1	2.4	2.1	7.5	8.6	3.5	4.4	3.8	3.8
21	3.5	4.0	3.3	2.9	2.4	2.1	6.1	8.9	3.4	4.0	3.5	3.8
22	3.5	4.0	3.2	2.8	2.2	2.1	4.9	7.5	3.6	4.2	4.1	3.8
23	3.5	4.0	3.2	2.8	2.2	2.1	5.2	8.9	5.4	6.2	4.2	3.8
24	3.5	4.0	3.2	2.7	2.2	2.1	5.4	9.3	4.8	6.6	3.6	4.1
25	3.5	4.0	3.2	2.8	2.2	2.1	5.7	9.1	4.7	7.8	3.2	3.9
26	3.5	3.8	3.4	2.8	2.2	2.2	5.4	12	4.7	7.9	3.2	3.5
27	3.5	3.9	3.5	2.8	2.2	2.5	5.2	13	5.6	8.5	3.3	3.4
28	3.5	3.8	3.6	2.8	2.2	2.2	5.7	9.8	6.0	7.4	3.1	3.5
29	3.5	3.7	3.4	2.8	---	2.1	7.0	14	5.2	6.9	2.9	3.5
30	3.5	3.7	3.4	2.8	---	2.1	7.0	10	4.4	6.8	3.6	4.1
31	3.4	---	3.4	2.8	---	2.1	---	9.8	---	5.6	4.2	---
TOTAL	110.6	115.1	104.8	91.5	64.6	69.3	132.5	235.2	407.0	180.2	137.4	132.0
MEAN	3.57	3.84	3.38	2.95	2.31	2.24	4.42	7.59	13.6	5.81	4.43	4.40
MAX	4.4	4.3	3.7	3.7	2.7	2.8	8.8	14	62	8.5	6.1	7.5
MIN	3.2	3.0	3.2	2.7	2.1	2.1	2.2	5.0	3.4	4.0	2.9	3.4
AC-FT	219	228	208	181	128	137	263	467	807	357	273	262

CAL YR 1980 TOTAL 6092.0 MEAN 16.6 MAX 214 MIN 2.4 AC-FT 12080
WTR YR 1981 TOTAL 1780.2 MEAN 4.88 MAX 62 MIN 2.1 AC-FT 3530

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

LOCATION.--Lat 40°05'00", long 106°05'15", in NE¼NE¼ sec.2, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on left bank about 1,000 ft (300 m) north of U.S. Highway 40, 1 mi (1.6 km) northeast of Hot Sulphur Springs, and 4.5 mi (7.2 km) upstream from Beaver Creek.

DRAINAGE AREA.--825 mi^2 (2,137 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs, and as Grand River at Sulphur Springs 1907-13.

REVISED RECORDS.--WSP 1313: 1905. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft (2,338 m), from railroad elevations. July 28, 1904, to Apr. 16, 1906, nonrecording gage on bridge 1.7 mi (2.7 km) downstream at different datum. Apr. 17, 1906, to Sept. 18, 1930, nonrecording gage at bridge 1.4 mi (2.3 km) downstream at datum 7,651.26 ft (2,332.104 m) National Geodetic Vertical Datum of 1929. Supplemental water-stage recorder (nonrecording gage prior to Jan. 1, 1963) at different datum at site 1.7 mi (2.7 km) downstream, used for winter records some years.

REMARKS.--Records good except those for winter period, which are poor. Flow affected by transmountain diversions, storage reservoirs, and diversions above station for irrigation of about 13,000 acres (52.6 km^2).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,300 ft^3/s (292 m^3/s) June 15, 1921, gage height, 8.7 ft (2.56 m), site and datum then in use; minimum daily, 33 ft^3/s (0.93 m^3/s) Sept. 27, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 595 ft^3/s (16.9 m^3/s) at 1200 May 29, gage height, 1.54 ft (0.469 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Sept. 19, 20, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	82	76	70	54	69	72	101	417	195	121	75
2	64	83	76	70	54	69	78	121	361	229	110	72
3	63	82	76	70	50	70	88	159	361	283	106	78
4	63	88	76	70	54	70	82	193	439	260	101	79
5	63	83	76	70	54	70	88	157	375	244	101	75
6	63	83	76	70	54	72	82	158	359	212	75	70
7	62	84	76	66	54	72	90	154	388	185	75	66
8	68	82	76	62	54	71	92	153	421	187	75	58
9	68	81	72	60	54	71	98	159	415	186	81	59
10	69	79	70	60	52	72	129	159	394	192	80	67
11	68	81	70	60	49	71	150	162	345	170	86	73
12	71	89	70	64	58	73	166	165	308	189	87	64
13	78	91	70	66	59	75	161	178	277	221	96	59
14	82	91	70	64	58	76	158	173	254	207	89	58
15	91	87	70	62	60	77	157	167	256	195	85	57
16	91	80	70	58	59	77	159	188	262	176	91	49
17	89	62	70	50	60	77	161	243	247	188	99	44
18	90	66	70	50	60	74	157	260	236	211	78	42
19	92	72	70	50	61	73	154	227	228	171	69	41
20	95	76	70	50	64	75	160	215	209	150	66	41
21	93	76	70	50	64	74	137	233	200	143	65	42
22	90	76	70	52	64	74	142	225	177	139	68	43
23	83	76	70	54	63	76	120	246	181	135	77	43
24	73	76	70	54	67	77	121	247	169	134	74	41
25	77	76	70	50	66	77	128	229	160	138	76	44
26	81	76	70	50	66	79	134	255	168	149	71	44
27	88	76	70	50	67	84	138	272	174	154	70	42
28	80	76	70	52	68	83	115	285	235	154	67	42
29	91	76	70	54	---	75	105	502	233	135	66	43
30	78	76	70	54	---	70	96	475	211	130	68	44
31	82	---	70	54	---	70	---	408	---	129	69	---
TOTAL	2405	2382	2220	1816	1647	2293	3718	6869	8460	5591	2542	1655
MEAN	77.6	79.4	71.6	58.6	58.8	74.0	124	222	282	180	82.0	55.2
MAX	95	91	76	70	68	84	166	502	439	283	121	79
MIN	59	62	70	50	49	69	72	101	160	129	65	41
AC-FT	4770	4720	4400	3600	3270	4550	7370	13620	16780	11090	5040	3280

CAL YR 1980 TOTAL 89734 MEAN 245 MAX 1700 MIN 59 AC-FT 178000
WTR YR 1981 TOTAL 41598 MEAN 114 MAX 502 MIN 41 AC-FT 82510

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURES: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 400 micromhos Feb. 5, 1974; minimum daily, 48 micromhos June 2, 1947.
WATER TEMPERATURES: Maximum, 29°C Aug. 3, 1981; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 200 micromhos Apr. 2; minimum daily, 100 micromhos Apr. 19.
WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 3; minimum daily, 0.0°C many days during November to April.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 14...	1320	85	140	136	8.0	3.0	10.8	.28	54	17	2.9	6.6
JAN 26...	1310	49	115	137	8.8	2.5	10.4	.68	52	16	2.9	8.9
JUN 18...	1620	256	150	153	8.1	14.0	8.1	1.2	62	20	3.0	6.4

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 14...	.4	1.3	60	4.8	1.4	.0	12	82	.11	18.8	.01	.00
JAN 26...	.5	1.1	56	7.6	1.7	.3	10	83	.11	11.0	.28	.25
JUN 18...	.4	1.2	71	.8	1.0	.2	12	88	.12	60.8	.04	.05

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
NOV 14...	.35	.28	.36	.040	.050	1	0	1	<1	4	2	5
JAN 26...	.31	.43	.59	.050	.050	0	0	4	3	9	0	5
JUN 18...	1.00	1.1	1.0	.100	.040	1	1	1	<1	4	0	4

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 14...	1	90	3	9	10	.1	3.3	0	0	30	5
JAN 26...	3	50	55	40	20	.1	.0	0	0	20	20
JUN 18...	2	60	4	1	20	.0	.0	0	0	20	10

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	140	140	140	130	130	170	150	140	---	160	140
2	140	140	130	120	130	130	200	130	140	---	160	140
3	140	130	130	130	130	140	150	120	140	---	170	160
4	170	140	140	140	135	130	150	120	140	---	170	140
5	140	130	140	140	120	140	180	130	130	---	160	160
6	140	140	140	140	130	130	180	---	140	---	160	160
7	140	130	130	140	130	140	140	130	140	---	160	150
8	140	130	130	140	130	140	130	130	130	160	160	140
9	140	130	140	140	130	130	130	140	110	160	180	150
10	150	130	140	140	130	140	130	140	130	170	160	150
11	140	130	140	140	140	140	130	140	130	180	140	140
12	150	130	140	140	130	140	120	140	140	160	150	180
13	140	140	140	140	130	130	120	130	150	170	160	200
14	140	160	140	140	135	140	120	140	150	170	---	140
15	150	140	140	130	125	140	120	140	150	160	150	150
16	130	150	140	120	130	130	120	140	150	170	140	150
17	140	140	130	120	130	140	120	140	150	170	140	150
18	140	160	140	130	130	130	110	140	160	170	150	160
19	140	150	130	140	130	140	100	140	150	170	150	---
20	130	150	140	140	130	130	110	140	160	170	150	160
21	130	140	130	140	130	140	110	130	140	170	150	160
22	120	150	130	140	140	120	110	150	160	160	190	150
23	130	140	140	140	140	120	110	140	160	160	150	160
24	---	140	130	130	140	130	120	150	---	170	140	160
25	140	140	130	130	130	130	130	140	---	160	150	160
26	140	130	130	115	130	140	110	140	---	150	140	160
27	130	140	130	130	130	140	110	130	---	160	140	150
28	130	140	130	130	130	150	120	140	---	160	140	160
29	140	130	130	130	---	150	120	130	---	160	150	150
30	130	140	130	130	---	130	120	150	---	170	140	160
31	130	---	140	130	---	150	---	140	---	160	140	---
MEAN	139	139	135	134	131	136	130	137	143	165	153	155

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	1.0	.0	.0	.0	.0	.0	5.0	11.0	16.0	18.0	7.0
2	14.0	1.0	.0	.0	.0	.0	5.0	10.0	12.0	17.0	21.0	13.0
3	17.0	1.0	---	.0	.0	.0	3.0	8.0	9.0	17.0	19.0	15.0
4	8.0	1.0	.0	.0	.0	.0	6.0	10.0	10.0	18.0	20.0	16.0
5	10.0	4.0	---	.0	.0	.0	8.0	9.0	12.0	17.0	18.0	20.0
6	17.0	5.0	.0	.0	.0	---	.0	10.0	11.0	19.0	20.0	19.0
7	14.0	3.0	.0	.0	.0	.0	.0	9.0	12.0	15.0	21.0	19.0
8	12.0	2.0	.0	.0	.0	.0	4.0	6.0	12.0	17.0	19.0	13.0
9	10.0	4.0	.0	.0	.0	.0	.0	7.0	15.0	19.0	20.0	15.0
10	12.0	2.0	.0	.0	.0	.0	6.0	10.0	15.0	22.0	20.0	18.0
11	11.0	1.0	.0	.0	.0	.0	5.0	10.0	14.0	18.0	20.0	15.0
12	13.0	2.0	.0	.0	.0	.0	4.0	4.0	13.0	13.0	20.0	13.0
13	10.0	.0	.0	.0	.0	.0	4.0	4.0	13.0	18.0	20.0	10.0
14	10.0	.0	.0	.0	.0	.0	9.0	9.0	13.0	19.0	18.0	17.0
15	---	.0	.0	.0	.0	.0	3.0	8.0	15.0	20.0	18.0	17.0
16	---	.0	.0	.0	.0	.0	2.0	8.0	13.0	12.0	17.0	14.0
17	---	.0	.0	.0	.0	.0	13.0	6.0	14.0	18.0	17.0	14.0
18	---	.0	.0	.0	.0	.0	9.0	10.0	14.0	18.0	19.0	17.0
19	10.0	.0	.0	.0	.0	1.0	5.0	10.0	13.0	20.0	20.0	15.0
20	8.0	.0	.0	.0	.0	1.0	9.0	11.0	16.0	20.0	20.0	11.0
21	7.0	.0	.0	.0	.0	2.0	5.0	15.0	13.0	12.0	19.0	13.0
22	3.0	.0	.0	.0	.0	.0	5.0	10.0	16.0	20.0	19.0	18.0
23	8.0	.0	.0	.0	.0	3.0	6.0	12.0	---	20.0	19.0	15.0
24	8.0	.0	.0	.0	.0	2.0	2.0	12.0	15.0	16.0	17.0	17.0
25	3.0	.0	.0	.0	.0	2.0	---	11.0	16.0	16.0	15.0	14.0
26	11.0	.0	.0	---	.0	2.0	10.0	9.0	12.0	18.0	15.0	10.0
27	7.0	.0	.0	.0	.0	.0	9.0	7.0	15.0	19.0	17.0	10.0
28	5.0	.0	.0	.0	.0	1.0	7.0	11.0	16.0	19.0	23.0	12.0
29	5.0	.0	.0	.0	.0	---	3.0	6.0	17.0	18.0	16.0	18.0
30	2.0	.0	.0	.0	---	.0	4.0	11.0	17.0	18.0	12.0	12.0
31	1.0	---	.0	.0	---	.0	---	11.0	---	19.0	17.0	---

09034900 BOBTAIL CREEK NEAR JONES PASS, CO

LOCATION.--Lat 39°45'37", long 105°54'21", in sec.28, T.3 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 320 ft (98 m) upstream from diversion dam and 0.4 mi (0.6 km) south of entrance to August P. Gumlick Tunnel.

DRAINAGE AREA.--5.49 mi² (14.21 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,430 ft (3,179 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 9.62 ft³/s (0.272 m³/s), 6,970 acre-ft/yr (8.59 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 187 ft³/s (5.30 m³/s) June 20, 1968, gage height, 4.71 ft (1.436 m); maximum recorded gage height, 6.53 ft (1.990 m) May 23, 1980 (backwater from ice); minimum daily discharge, 0.44 ft³/s (0.012 m³/s) Feb. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 9	1800	*175	4.96	4.56	1.390	July 8	1800	108	3.06	4.13	1.259

Minimum daily discharge 0.80 ft³/s (0.023 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.7	1.1	1.0	.90	1.0	.90	5.0	32	23	8.6	4.0
2	2.2	1.7	1.0	1.0	.95	1.0	.95	6.0	35	25	7.4	3.1
3	1.8	1.6	1.1	1.0	1.0	1.0	1.0	6.0	40	28	7.4	3.3
4	1.8	1.5	1.0	1.0	1.0	1.0	.95	5.8	45	25	6.8	2.7
5	1.7	1.5	1.0	.95	1.0	1.1	.95	5.5	59	23	5.9	3.5
6	1.7	1.5	1.0	.95	1.0	1.0	1.0	6.0	76	22	4.8	3.5
7	1.4	1.6	1.0	1.0	.95	1.0	1.0	6.2	92	22	4.8	4.0
8	1.4	1.6	1.0	1.0	.95	.95	1.0	5.8	99	36	4.4	4.2
9	1.3	1.7	1.0	1.1	.85	.95	1.0	5.8	117	33	4.6	4.4
10	1.3	1.7	1.0	1.0	.80	.95	1.1	5.9	101	34	5.7	5.9
11	1.3	1.6	1.0	1.0	.90	1.0	1.1	6.0	95	30	5.5	8.6
12	1.3	1.5	1.1	1.1	.95	1.0	1.2	5.9	74	30	7.1	7.6
13	1.6	1.5	1.1	1.1	1.0	1.0	1.3	5.7	59	27	7.6	7.4
14	1.4	1.4	1.1	1.0	1.0	1.0	1.4	5.7	45	24	6.4	7.4
15	1.4	1.3	1.1	1.0	1.1	1.0	1.4	5.7	36	21	6.6	6.6
16	1.3	1.2	1.0	1.0	1.1	1.0	1.5	5.3	31	22	6.4	6.1
17	1.2	1.2	1.0	1.0	1.1	1.0	1.5	4.6	30	21	5.7	5.7
18	1.2	1.2	1.1	1.0	1.1	1.0	1.5	3.8	28	19	4.6	5.0
19	1.2	1.2	1.1	1.0	1.1	1.0	1.5	3.8	28	18	4.2	4.8
20	1.3	1.2	1.0	1.0	1.1	1.0	1.5	4.8	31	16	4.0	4.4
21	1.3	1.2	1.0	1.1	1.0	1.0	1.7	4.4	32	15	4.6	4.4
22	1.3	1.2	.90	1.2	1.0	.95	2.0	3.5	30	14	5.9	3.8
23	1.3	1.2	.90	1.2	1.1	.95	2.4	3.5	29	13	4.6	3.5
24	1.3	1.2	.95	1.1	1.1	.95	2.7	5.0	29	12	4.4	3.5
25	1.7	1.1	.95	1.0	1.1	1.0	3.2	6.6	27	12	4.0	3.1
26	1.9	1.0	1.0	.95	1.1	1.0	4.5	12	27	12	3.5	3.1
27	1.7	1.1	.95	1.0	1.1	1.0	5.0	17	28	12	3.3	2.7
28	1.5	1.1	.95	1.1	1.0	.95	4.8	22	29	10	3.1	2.4
29	1.5	1.2	.95	1.1	---	.95	4.5	26	26	10	3.1	2.4
30	1.6	1.1	.95	1.0	---	.90	4.3	25	25	8.4	3.1	2.2
31	1.6	---	1.0	.95	---	.90	---	28	---	8.4	3.6	---
TOTAL	46.9	40.8	31.30	31.90	28.35	30.50	58.85	262.3	1435	625.8	161.7	133.3
MEAN	1.51	1.36	1.01	1.03	1.01	.98	1.96	8.46	47.8	20.2	5.22	4.44
MAX	2.4	1.7	1.1	1.2	1.1	1.1	5.0	28	117	36	8.6	8.6
MIN	1.2	1.0	.90	.95	.80	.90	.90	3.5	25	8.4	3.1	2.2
AC-FT	93	81	62	63	56	60	117	520	2850	1240	321	264

CAL YR 1980 TOTAL 3541.59 MEAN 9.68 MAX 105 MIN .60 AC-FT 7020
WTR YR 1981 TOTAL 2886.70 MEAN 7.91 MAX 117 MIN .80 AC-FT 5730

NOTE.--NO GAGE-HEIGHT RECORD OCT. 27 TO APR. 27.

09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 700 ft (210 m) downstream from Steelman Creek and 6.5 mi (10.5 km) southeast of Leal.

DRAINAGE AREA.--16.3 mi (42.4 km^2).

PERIOD OF RECORD.--July 1933 to September 1941, published as Williams River below Steelman Creek, October 1965 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 9,800 ft (2,987 m), from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft (180 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Tranmountain diversions above station through August P. Gumlick Tunnel (station 09036000) since May 10, 1940. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 24.9 ft^3/s (0.705 m^3/s), 18,040 acre-ft/yr (22.2 hm^3/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft^3/s (12.5 m^3/s) June 21, 1938, gage height, 2.48 ft (0.756 m), site and datum then in use, from rating curve extended above 260 ft^3/s (7.4 m^3/s); maximum gage height, 5.66 ft (1.725 m) May 10, 1973 (backwater from ice); minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 257 ft^3/s (7.28 m^3/s) at 1700 June 8, gage height, 5.04 ft (1.536 m); minimum daily, 0.60 ft^3/s (0.017 m^3/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	10	2.0	1.5	1.4	1.2	1.0	4.1	31	2.5	1.6	1.1
2	5.6	9.0	2.0	1.5	1.4	1.2	1.0	4.3	7.7	2.8	1.6	.90
3	5.3	8.0	2.0	1.5	1.4	1.2	1.0	4.7	22	31	1.6	.96
4	5.3	7.8	2.0	1.5	1.4	1.2	1.0	17	9.3	56	1.5	.84
5	5.0	7.2	2.0	1.5	1.4	1.2	1.0	2.3	10	51	1.3	.84
6	5.0	7.0	2.0	1.5	1.4	1.2	1.0	2.2	48	29	1.2	.96
7	4.7	7.0	2.0	1.5	1.4	1.2	1.0	1.8	60	2.8	1.1	1.1
8	4.5	7.0	2.0	1.5	1.4	1.2	1.1	1.8	130	4.1	1.1	1.5
9	4.3	7.0	2.0	1.5	1.4	1.2	1.1	1.6	116	4.5	1.1	1.1
10	4.3	7.0	2.0	1.5	1.4	1.1	1.1	2.3	76	3.4	1.3	1.1
11	4.7	6.4	2.0	1.5	1.3	1.1	1.2	2.3	75	3.6	1.3	.96
12	4.7	5.0	2.0	1.5	1.3	1.1	1.3	1.3	31	3.9	1.5	.90
13	5.0	3.0	2.0	1.5	1.3	1.1	1.5	1.2	11	3.2	1.5	.90
14	5.0	1.2	2.0	1.5	1.3	1.1	1.8	1.3	5.9	2.8	1.3	.84
15	5.9	.90	2.0	1.5	1.3	1.1	2.0	5.0	26	2.6	1.2	.84
16	5.6	2.0	2.0	1.5	1.3	1.1	2.2	7.7	5.0	3.2	1.2	.72
17	9.3	2.0	2.0	1.5	1.3	1.1	2.5	7.1	4.3	3.6	1.1	.72
18	9.6	2.0	1.8	1.5	1.3	1.1	2.8	7.4	3.9	3.4	1.0	.66
19	8.1	2.0	1.6	1.5	1.3	1.0	3.0	8.5	3.6	3.2	1.0	.66
20	9.6	2.0	1.5	1.5	1.3	1.0	3.5	11	3.4	2.8	1.2	.66
21	11	2.0	1.5	1.5	1.3	1.0	3.2	12	3.2	2.6	.96	.78
22	12	2.0	1.5	1.5	1.2	1.0	3.0	9.6	23	2.5	1.2	.72
23	11	2.0	1.5	1.5	1.2	1.0	2.8	11	3.0	2.5	1.2	.66
24	13	2.0	1.5	1.5	1.2	1.0	2.8	14	2.6	2.5	1.1	.66
25	14	2.0	1.5	1.5	1.2	1.0	3.5	18	2.5	2.3	1.0	.66
26	13	2.0	1.5	1.5	1.2	1.0	4.5	14	7.2	2.6	.96	.72
27	11	2.0	1.5	1.5	1.2	1.0	8.0	5.9	14	2.8	.96	.66
28	10	2.0	1.5	1.5	1.2	1.0	7.0	6.5	10	2.2	.90	.60
29	10	2.0	1.5	1.5	---	1.0	4.3	8.9	2.6	2.0	.84	.60
30	10	2.0	1.5	1.5	---	1.0	3.4	8.1	2.5	1.9	.90	.60
31	10	---	1.5	1.5	---	1.0	---	8.1	---	1.8	.96	---
TOTAL	242.1	123.50	55.4	46.5	36.7	33.7	74.6	211.0	749.7	245.1	36.68	24.92
MEAN	7.81	4.12	1.79	1.50	1.31	1.09	2.49	6.81	25.0	7.91	1.18	.83
MAX	14	10	2.0	1.5	1.4	1.2	8.0	18	130	56	1.6	1.5
MIN	4.3	.90	1.5	1.5	1.2	1.0	1.0	1.2	2.5	1.8	.84	.60
AC-FT	480	245	110	92	73	67	148	419	1490	486	73	49

CAL YR 1980 TOTAL 7983.50 MEAN 21.8 MAX 190 MIN .90 AC-FT 15840
WTR YR 1981 TOTAL 1879.90 MEAN 5.15 MAX 130 MIN .60 AC-FT 3730

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 27.

09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO

LOCATION.--Lat 39°47'22", long 106°01'18", in NW¼SW¼ sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 1.0 mi (1.6 km) upstream from Darling Creek and 1.9 mi (3.1 km) southeast of Leal.

DRAINAGE AREA.--34.7 mi^2 (89.9 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,970 ft (2,734 m), from topographic map. Prior to Oct. 1, 1972, at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 34.2 ft^3/s (0.969 m^3/s), 24,780 acre-ft/yr (30.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 677 ft^3/s (19.2 m^3/s) June 24, 1971, gage height, 7.12 ft (2.170 m), site and datum then in use, from rating curve extended above 430 ft^3/s (12 m^3/s); minimum daily, 2.7 ft^3/s (0.076 m^3/s) Apr. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 356 ft^3/s (10.1 m^3/s) at 2200 June 9, gage height, 5.38 ft (1.640 m); minimum daily, 4.2 ft^3/s (0.12 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	5.5	5.0	4.5	5.0	5.0	27	73	35	15	11
2	16	12	5.5	5.0	4.5	5.0	5.0	30	60	39	15	8.7
3	16	12	5.5	5.0	4.5	5.0	5.0	35	79	54	14	8.9
4	15	12	5.5	5.0	4.5	5.0	5.0	39	82	77	13	8.2
5	15	12	5.5	5.0	4.5	5.0	5.0	33	80	71	12	8.1
6	14	12	5.5	5.0	4.5	5.0	5.2	27	110	56	11	9.9
7	13	12	5.5	5.0	4.5	5.0	5.2	22	138	31	11	11
8	13	12	5.5	5.0	4.5	5.0	5.4	19	197	40	11	17
9	12	11	5.5	4.7	4.5	5.0	5.8	17	208	39	10	11
10	12	10	5.0	4.5	4.5	5.0	6.2	16	183	38	11	12
11	12	10	5.0	4.5	4.2	5.0	6.6	18	166	35	12	12
12	12	9.0	5.0	4.5	4.4	5.0	7.0	15	133	41	12	9.8
13	12	9.0	5.0	4.5	4.5	5.0	7.4	13	109	35	12	9.6
14	12	8.6	5.0	4.5	4.6	5.0	7.8	15	88	31	10	8.9
15	12	7.0	5.0	4.5	4.8	5.0	8.4	18	92	29	10	8.7
16	12	6.2	5.0	4.5	4.9	5.0	9.0	26	69	30	9.7	8.3
17	12	6.0	5.0	4.5	4.9	5.0	10	26	64	29	9.4	7.7
18	13	6.0	5.0	4.5	5.0	5.0	11	25	59	28	9.2	7.5
19	14	6.0	5.0	4.5	5.0	5.0	12	26	56	27	8.9	7.3
20	14	6.0	5.0	4.5	5.0	5.0	14	34	55	24	8.4	7.2
21	14	6.0	5.0	4.5	5.0	5.0	13	38	53	22	9.2	7.7
22	13	6.0	5.0	4.5	5.0	5.0	12	32	67	21	11	7.4
23	11	6.0	5.0	4.5	5.0	5.0	12	29	49	20	11	6.6
24	9.3	6.0	5.0	4.5	5.0	5.0	14	32	45	20	9.2	6.9
25	11	6.0	5.0	4.5	5.0	5.0	16	36	42	19	8.7	7.0
26	12	5.5	5.0	4.5	5.0	5.0	19	43	45	19	8.0	6.9
27	11	5.5	5.0	4.5	5.0	5.0	22	38	50	19	8.4	6.5
28	11	5.5	5.0	4.5	5.0	5.0	23	44	48	18	7.6	6.2
29	12	5.5	5.0	4.5	---	5.0	24	57	40	17	7.2	5.4
30	12	5.5	5.0	4.5	---	5.0	25	54	36	16	8.9	5.9
31	12	---	5.0	4.5	---	5.0	---	55	---	15	8.8	---
TOTAL	395.3	247.3	159.5	143.7	132.3	155.0	326.0	939	2576	995	322.6	259.3
MEAN	12.8	8.24	5.15	4.64	4.73	5.00	10.9	30.3	85.9	32.1	10.4	8.64
MAX	16	12	5.5	5.0	5.0	5.0	25	57	208	77	15	17
MIN	9.3	5.5	5.0	4.5	4.2	5.0	5.0	13	36	15	7.2	5.4
AC-FT	784	491	316	285	262	307	647	1860	5110	1970	640	514

CAL YR 1980 TOTAL 12123.7 MEAN 33.1 MAX 245 MIN 3.0 AC-FT 24050
WTR YR 1981 TOTAL 6651.0 MEAN 18.2 MAX 208 MIN 4.2 AC-FT 13190

NOTE.--No gage-height record Dec. 10 to May 5.

09035800 DARLING CREEK NEAR LEAL, CO

LOCATION.--Lat 39°48'17", long 106°01'11", in NE¼SW¼ sec.9, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.6 mi (1.0 km) upstream from mouth and 1.4 mi (2.3 km) southeast of Leal.

DRAINAGE AREA.--8.18 mi^2 (21.2 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,090 ft (2,771 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 8.86 ft^3/s (0.251 m^3/s), 6,420 acre-ft/yr (7.92 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft^3/s (6.34 m^3/s) June 20, 1968, gage height, 3.62 ft (1.103 m), from rating curve extended above 80 ft^3/s (2.3 m^3/s); maximum gage height, 3.91 ft (1.192 m) June 25, 1971; minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 133 ft^3/s (3.77 m^3/s) at 1900 June 8, gage height, 3.89 ft (1.186 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s) Feb. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.5	2.6	2.1	1.5	1.6	1.6	8.6	24	10	4.1	4.8
2	3.3	2.4	2.6	2.0	1.5	1.6	1.6	9.5	28	12	4.0	3.1
3	3.2	2.3	2.5	1.9	1.5	1.6	1.6	10	31	11	4.3	3.3
4	3.1	2.4	2.4	1.8	1.5	1.6	1.6	8.9	40	9.3	3.9	2.9
5	3.1	2.7	2.3	1.8	1.5	1.6	1.6	8.2	41	8.5	3.7	3.4
6	3.1	3.2	2.4	1.8	1.5	1.6	1.7	7.6	52	7.8	3.5	3.7
7	3.0	3.2	2.4	1.8	1.5	1.6	1.7	7.4	72	7.6	3.4	4.5
8	3.0	3.1	2.5	1.8	1.5	1.6	1.8	6.5	89	7.9	3.3	5.4
9	2.9	3.0	2.6	1.8	1.5	1.6	1.9	5.8	88	7.9	3.4	3.8
10	2.9	3.1	2.7	1.8	1.5	1.6	2.0	5.3	80	7.8	3.5	4.5
11	2.9	3.1	2.7	1.8	1.4	1.6	2.1	5.0	69	7.3	3.5	5.0
12	3.0	3.0	2.8	1.8	1.4	1.6	2.3	4.6	56	8.3	4.3	3.8
13	3.4	3.1	2.8	1.7	1.5	1.6	2.4	4.5	46	7.8	3.9	3.5
14	3.0	2.9	2.8	1.7	1.5	1.6	2.5	4.4	36	6.8	3.5	3.2
15	3.6	2.8	2.8	1.7	1.5	1.6	2.7	4.7	30	6.4	3.8	3.1
16	3.2	2.8	2.8	1.6	1.5	1.6	3.0	4.2	28	6.5	3.5	2.9
17	3.3	2.7	2.8	1.6	1.5	1.6	3.4	3.9	28	6.8	3.2	2.8
18	3.4	2.6	2.8	1.6	1.5	1.6	3.8	4.0	25	6.6	3.0	2.8
19	3.5	2.6	2.8	1.6	1.5	1.6	4.3	4.1	24	6.2	2.8	2.7
20	3.5	2.5	2.8	1.5	1.6	1.6	4.7	5.0	23	5.7	3.0	2.9
21	3.4	2.5	2.7	1.5	1.6	1.6	4.6	5.6	22	5.4	2.9	3.1
22	3.3	2.5	2.6	1.5	1.6	1.6	4.3	4.9	20	5.5	4.2	2.8
23	2.7	2.5	2.4	1.5	1.6	1.6	4.1	5.4	18	5.2	3.5	2.8
24	2.7	2.5	2.3	1.5	1.6	1.6	4.5	5.7	17	5.0	3.4	2.8
25	2.7	2.5	2.3	1.5	1.6	1.6	5.4	6.6	14	4.8	3.3	2.8
26	2.4	2.5	2.3	1.5	1.6	1.6	6.4	9.3	13	4.9	2.9	2.8
27	2.2	2.5	2.3	1.5	1.6	1.6	8.0	12	12	5.7	2.7	2.7
28	2.2	2.5	2.3	1.5	1.6	1.6	7.5	15	12	4.8	2.7	2.6
29	2.2	2.5	2.3	1.5	---	1.6	7.0	21	9.9	4.4	3.0	2.7
30	2.4	2.6	2.3	1.5	---	1.6	7.7	21	9.1	4.4	3.1	2.6
31	2.6	---	2.2	1.5	---	1.6	---	22	---	4.2	3.3	---
TOTAL	92.7	81.1	78.9	51.7	42.7	49.6	107.8	250.7	1057.0	212.5	106.6	99.8
MEAN	2.99	2.70	2.55	1.67	1.53	1.60	3.59	8.09	35.2	6.85	3.44	3.33
MAX	3.6	3.2	2.8	2.1	1.6	1.6	8.0	22	89	12	4.3	5.4
MIN	2.2	2.3	2.2	1.5	1.4	1.6	1.6	3.9	9.1	4.2	2.7	2.6
AC-FT	184	161	156	103	85	98	214	497	2100	421	211	198

CAL YR 1980 TOTAL 2926.2 MEAN 8.00 MAX 65 MIN 1.8 AC-FT 5800
WTR YR 1981 TOTAL 2231.1 MEAN 6.11 MAX 89 MIN 1.4 AC-FT 4430

NOTE.--NO GAGE-HEIGHT RECORD DEC. 6 TO MAY 6.

09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'44", long 106°01'49", in NE¼ sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft (244 m) upstream from highway bridge, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) southeast of Leal.

DRAINAGE AREA.--27.2 mi² (70.4 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,950 ft (2,728 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 29.9 ft³/s (0.847 m³/s), 21,660 acre-ft/yr (26.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 464 ft³/s (13.1 m³/s) June 15, 1978, gage height 3.37 ft (1.027 m); maximum gage height, 4.22 ft (1.286 m) Nov. 22, 1979 (backwater from ice); minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 276 ft³/s (7.82 m³/s) at 1800 June 9, gage height, 3.19 ft (0.972 m); only peak above base of 200 ft³/s (5.7 m³/s), maximum gage height 3.52 ft (1.073 m) Oct. 30 (backwater from ice); minimum daily discharge, 8.2 ft³/s (0.23 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	12	11	9.4	9.8	9.7	38	73	49	22	17
2	11	14	12	11	9.7	9.8	9.8	41	73	56	21	15
3	11	14	12	10	9.6	9.8	9.8	48	83	53	21	15
4	11	14	12	10	9.4	9.8	9.9	39	96	45	21	14
5	11	14	12	10	9.1	9.8	10	35	107	41	19	15
6	11	14	12	10	9.0	9.8	10	32	117	38	18	17
7	11	13	12	10	8.8	9.8	10	28	133	37	17	16
8	11	13	12	10	8.7	9.8	11	25	148	49	17	18
9	11	13	11	10	8.7	9.8	11	23	182	51	17	16
10	11	13	11	10	8.4	9.8	11	22	208	48	17	21
11	11	13	11	10	8.2	9.8	11	22	186	45	19	26
12	11	13	11	10	8.6	9.8	11	20	157	55	20	18
13	11	13	11	9.8	9.0	9.8	11	19	134	48	20	17
14	11	12	11	9.8	9.8	9.8	11	19	110	40	18	16
15	12	11	11	9.8	9.8	9.8	11	20	96	40	18	16
16	12	11	11	9.8	9.8	9.8	11	20	87	43	19	15
17	13	11	11	9.8	9.8	9.8	13	20	83	42	21	14
18	13	11	11	9.8	9.8	9.8	15	19	77	39	17	14
19	13	11	11	9.8	9.8	9.8	16	21	75	36	16	13
20	13	11	11	9.8	9.8	9.8	15	24	76	33	15	14
21	13	11	11	9.8	9.8	9.8	14	25	74	31	15	14
22	13	11	11	9.4	9.8	9.8	14	23	71	29	19	14
23	13	11	11	9.4	9.8	9.8	13	25	68	28	18	13
24	13	11	11	9.4	9.8	9.8	18	26	63	27	16	13
25	13	11	11	9.4	9.8	9.8	21	28	60	26	15	13
26	13	11	11	9.4	9.8	9.8	26	36	58	25	14	13
27	13	11	11	9.4	9.8	9.7	27	43	59	29	14	13
28	13	11	11	9.4	9.8	9.6	29	55	61	27	13	13
29	13	11	11	9.4	---	9.6	33	68	53	25	13	12
30	13	12	11	9.4	---	9.6	36	66	50	23	14	13
31	14	---	11	9.4	---	9.6	---	71	---	23	14	---
TOTAL	375	364	349	304.2	263.6	302.9	458.2	1001	2918	1181	538	458
MEAN	12.1	12.1	11.3	9.81	9.41	9.77	15.3	32.3	97.3	38.1	17.4	15.3
MAX	14	14	12	11	9.8	9.8	36	71	208	56	22	26
MIN	11	11	11	9.4	8.2	9.6	9.7	19	50	23	13	12
AC-FT	744	722	692	603	523	601	909	1990	5790	2340	1070	908

CAL YR 1980 TOTAL 11882.6 MEAN 32.5 MAX 281 MIN 6.0 AC-FT 23570
WTR YR 1981 TOTAL 8512.9 MEAN 23.3 MAX 208 MIN 8.2 AC-FT 16890

NOTE.--NO GAGE-HEIGHT RECORD NOV. 6 TO APR. 14.

09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°49'53", long 106°03'15", in sec.31, T.2 S., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank at downstream side of bridge, 100 ft (30 m) downstream from Kinney Creek, and 1.7 mi (2.7 km) northwest of Leal.

DRAINAGE AREA.--89.3 mi² (231.3 km²).

PERIOD OF RECORD.--July 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

REVISED RECORDS.--WSP 1733: 1951. WSP 2124: Drainage area. WRD Colo. 1973: 1972.

GAGE.--Water-stage recorder. Altitude of gage is 8,790 ft (2,679 m), from topographic map. Prior to Aug. 16, 1953, at site 15 ft (5 m) downstream at present datum.

REMARKS.--Records good, except those for winter period, which are fair. Transmountain diversion above station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres (809,000 m²) of hay meadows above station and about 40 acres (162,000 m²) below. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through August P. Gumlick Tunnel, furnished by Colorado Division of Water Resources.

AVERAGE DISCHARGE.--48 years, 101 ft³/s (2.860 m³/s), 73,170 acre-ft/yr (90.2 hm³/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) June 10, 1952, gage height, 4.23 ft (1.289 m); maximum gage height, 5.46 ft (1.664 m) June 29, 1971 (backwater from log); minimum daily discharge, 13 ft³/s (0.37 m³/s) at times in 1939, 1963, 1964, and 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 858 ft³/s (24.3 m³/s) at 2300 June 9, gage height, 3.32 ft (1.012 m); minimum daily, 15 ft³/s (0.42 m³/s) Feb. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	36	22	19	16	17	17	96	228	127	46	40
2	34	36	22	18	16	17	18	107	226	142	44	33
3	35	37	22	18	16	17	19	145	273	154	44	37
4	35	39	22	18	16	17	17	132	324	173	42	35
5	35	38	23	18	16	17	17	105	325	160	37	31
6	35	35	22	18	16	17	18	94	389	140	33	43
7	36	32	22	18	16	17	19	83	474	104	32	44
8	33	32	22	17	16	17	19	72	589	125	33	63
9	30	30	21	17	16	17	20	66	642	126	36	43
10	30	29	20	17	16	17	23	61	618	127	36	60
11	30	28	21	16	15	17	25	63	575	106	42	64
12	30	27	21	16	15	17	27	60	502	140	45	53
13	33	30	20	16	16	17	29	57	422	124	46	53
14	34	27	20	17	17	16	29	55	346	106	40	39
15	39	19	20	17	17	16	32	60	304	96	40	33
16	40	19	21	17	17	17	33	67	256	99	40	32
17	37	20	21	17	17	17	38	68	240	99	45	32
18	40	20	21	17	17	17	43	67	223	96	37	34
19	40	21	21	17	17	17	47	70	209	88	34	35
20	40	21	20	17	17	17	49	79	209	79	30	37
21	40	20	19	18	17	17	46	88	208	73	31	41
22	41	20	19	16	17	17	43	78	212	67	41	43
23	37	21	19	16	17	17	40	82	187	65	40	26
24	31	22	19	16	17	17	49	86	175	62	36	28
25	35	22	19	16	17	17	58	95	165	58	37	30
26	39	21	20	16	17	18	71	122	160	56	34	33
27	41	21	20	16	17	18	86	126	169	61	32	35
28	34	21	20	16	17	17	82	156	170	56	32	34
29	32	22	19	16	---	17	86	214	146	52	32	31
30	36	22	18	16	---	17	93	200	132	48	35	26
31	37	---	19	16	---	17	---	209	---	47	29	---
TOTAL	1104	788	635	523	461	527	1193	3063	9098	3056	1161	1168
MEAN	35.6	26.3	20.5	16.9	16.5	17.0	39.8	98.8	303	98.6	37.5	38.9
MAX	41	39	23	19	17	18	93	214	642	173	46	64
MIN	30	19	18	16	15	16	17	55	132	47	29	26
AC-FT	2190	1560	1260	1040	914	1050	2370	6080	18050	6060	2300	2320
a	0	101	120	25	11	63	172	916	5180	2200	685	497

CAL YR 1980 TOTAL 35666 MEAN 97.4 MAX 703 MIN 18 AC-FT 70740
WTR YR 1981 TOTAL 22777 MEAN 62.4 MAX 642 MIN 15 AC-FT 45180

a DIVERSIONS, IN ACRE-FEET, THROUGH AUGUST P. GUMLICK TUNNEL, FURNISHED BY COLORADO DIVISION OF WATER RESOURCES.

09037500 WILLIAMS FORK NEAR PARSHALL, CO

LOCATION.--Lat 40°00'01", long 106°10'45", in SW¼SW¼ sec.31, T.1 N., R.78 W., Grand County, Hydrologic unit 14010001, on right bank 150 ft (46 m) downstream from bridge on State Highway 286, 3.7 mi (6.0 km) downstream from Skylark Creek, 3.9 mi (6.3 km) south of Parshall, and 4.2 mi (6.8 km) upstream from Williams Fork Reservoir Dam.

DRAINAGE AREA.--184 mi² (477 km²).

PERIOD OF RECORD.--July 1904 to September 1924, June 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Published as "near (Hot) Sulphur Springs" 1904-12 and as Williams River near Parshall June 1933 to September 1958.

REVISED RECORDS.--WSP 1243: 1918. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft (2,380.168 m) (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 1,300 acres (5.26 km²) above station and about 2,500 acres (10.1 km²) below. About 150 acres (607,000 m²) above station irrigated by diversions into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--68 years, 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (121 hm³/yr), including diversion to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,620 ft³/s (74.2 m³/s) June 14, 1918, gage height, 6.05 ft (1.884 m), site and datum then in use, from rating curve extended above 1,400 ft³/s (40 m³/s); minimum daily, 4.8 ft³/s (0.14 m³/s) May 6, 8-10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 990 ft³/s (28.0 m³/s) at 0400 June 10, gage height, 4.40 ft (1.341 m); minimum daily, 9.0 ft³/s (0.25 m³/s) Apr. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	47	33	25	20	26	35	10	191	25	57	56
2	39	47	33	25	20	27	36	12	178	37	54	48
3	39	45	33	25	20	28	33	54	184	51	45	50
4	40	50	34	25	21	29	31	54	260	60	27	46
5	37	47	34	25	20	37	31	25	241	50	25	44
6	39	46	34	25	20	31	35	14	266	37	22	50
7	38	48	34	25	20	30	35	12	392	23	18	49
8	40	49	34	25	20	27	33	12	532	53	18	65
9	40	48	34	25	20	33	34	12	637	88	17	54
10	39	43	33	25	19	33	42	12	646	101	18	59
11	42	41	33	25	17	35	49	13	552	79	19	72
12	42	44	33	25	19	32	51	14	459	125	22	61
13	44	47	33	25	22	29	50	14	314	145	25	56
14	46	48	33	25	24	34	49	13	238	124	29	52
15	51	29	33	25	25	33	43	14	169	112	35	51
16	54	22	33	25	25	35	32	15	135	108	35	49
17	51	19	33	25	25	28	29	19	109	111	37	47
18	52	27	33	25	25	28	34	16	96	109	32	43
19	53	32	32	25	25	32	37	16	74	97	28	41
20	52	32	32	25	25	27	38	15	70	89	26	40
21	51	32	32	25	25	27	32	20	71	83	26	40
22	51	32	32	25	25	27	22	18	68	78	32	41
23	49	32	32	24	25	30	14	19	60	77	38	38
24	37	32	32	23	25	29	9.5	28	44	74	31	37
25	43	32	31	23	25	36	9.3	40	23	73	33	39
26	51	32	30	22	25	29	9.0	67	20	70	28	39
27	52	32	30	21	25	30	13	74	24	75	22	40
28	45	33	30	21	25	33	9.5	94	39	72	21	39
29	44	33	30	22	---	30	10	209	27	66	20	39
30	49	33	29	21	---	35	11	190	24	63	22	39
31	50	---	28	21	---	32	---	190	---	58	34	---
TOTAL	1399	1134	1000	748	632	952	896.3	1315	6143	2413	896	1424
MEAN	45.1	37.8	32.3	24.1	22.6	30.7	29.9	42.4	205	77.8	28.9	47.5
MAX	54	50	34	25	25	37	51	209	646	145	57	72
MIN	37	19	28	21	17	26	9.0	10	20	23	17	37
AC-FT	2770	2250	1980	1480	1250	1890	1780	2610	12180	4790	1780	2820

CAL YR 1980 TOTAL 35239.0 MEAN 96.3 MAX 746 MIN 15 AC-FT 69900
WTR YR 1981 TOTAL 18952.3 MEAN 51.9 MAX 646 MIN 9.0 AC-FT 37590

09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO

LOCATION.--Lat 40°02'06", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, at dam on Williams Fork, 2.1 mi (3.4 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of Parshall.

DRAINAGE AREA.--230 mi^2 (596 km^2).

PERIOD OF RECORD.--April 1939 to current year. Prior to October 1948, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city engineer of Denver); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1938; storage began April 1939; dam was enlarged Dec. 5, 1956, to Apr. 22, 1959. Enlarged capacity, 96,820 acre-ft (119 hm^3) between elevations 7,634 ft (2,326.8 m), invert of outlet, and 7,811 ft (2,380.8 m), top of radial gates on spillway. No dead storage. Figures given represent usable contents. Reservoir is used for power development and to store water to compensate for water diverted through August P. Gumlick Tunnel. Water is released during periods of low flow in Colorado to supply decreed prior water rights. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 97,130 acre-ft (120 hm^3) July 9, 1962, elevation, 7,811.19 ft (2,380.851 m); no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 90,060 acre-ft (111 hm^3) July 17,18, elevation, 7,806.70 ft (2,379.482 m); minimum, 49,490 acre-ft (61.0 hm^3) Sept. 30, elevation, 7,773.90 ft (2,369.485 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,795.96	74,840	-
Oct. 31	7,795.03	73,620	-1,220
Nov. 30	7,794.38	72,770	-850
Dec. 31	7,793.68	71,860	-910
CAL YR 1980		-	+25,820
Jan. 31	7,793.03	71,030	-830
Feb. 28	7,792.72	70,630	-400
Mar. 31	7,792.33	70,140	-490
Apr. 30	7,791.90	69,590	-550
May 31	7,793.68	71,860	+2,270
June 30	7,804.45	86,690	+14,830
July 31	7,804.23	86,360	-330
Aug. 31	7,789.68	66,830	-19,530
Sept. 30	7,773.90	49,490	-17,340
WTR YR 1981			-25,350

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

LOCATION.--Lat 40°02'07", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, on left bank 400 ft (120 m) downstream from Williams Fork Reservoir, 2.1 mi (3.4 km) upstream from mouth, and 2.1 mi (3.4 km) southwest of Parshall.

DRAINAGE AREA.--230 mi² (596 km²).

PERIOD OF RECORD.--October 1948 to September 1954, August 1958 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,615.0 ft (2,321.05 m) (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--Records good. Flow regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 3,200 acres (13.0 km²) above station and about 100 acres (405,000 m²) below. About 450 acres (1.82 km²) above station irrigated by diversion into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 120 ft³/s (3.398 m³/s), 86,940 acre-ft/yr (107 hm³/yr), adjusted for storage in Williams Fork Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s (74.8 m³/s) June 20, 1953, gage height, 8.50 ft (2.591 m), site and datum then in use, from rating curve extended above 1,500 ft³/s (42 m³/s); no flow for part of Apr. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 366 ft³/s (10.4 m³/s) at 1600 July 31, gage height, 2.85 ft (0.869 m); minimum daily, 14 ft³/s (0.40 m³/s) Apr. 29 to May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	65	50	60	33	44	46	14	30	22	340	362
2	77	66	50	60	32	44	46	14	30	22	340	362
3	75	66	50	60	32	44	46	24	30	22	342	364
4	75	66	50	60	31	44	44	29	30	22	342	364
5	75	66	50	58	31	44	44	29	30	22	344	360
6	75	65	50	55	31	44	44	29	30	22	344	358
7	75	64	50	55	31	44	48	29	30	22	346	358
8	63	64	53	52	32	44	50	29	30	51	346	360
9	56	64	57	51	32	44	55	23	30	87	348	358
10	56	64	57	51	32	44	66	18	30	84	348	362
11	56	64	57	52	31	44	70	68	30	77	350	360
12	56	64	58	51	34	44	70	100	30	77	352	362
13	50	64	58	51	40	46	80	100	31	77	352	362
14	47	64	58	49	42	46	91	100	31	43	352	362
15	47	64	58	46	42	46	106	89	31	23	354	362
16	48	64	58	41	44	46	113	83	31	43	356	329
17	56	64	56	39	44	46	85	84	31	94	356	316
18	62	55	56	39	44	46	69	84	31	172	356	318
19	61	49	56	35	44	46	69	83	28	172	356	316
20	61	49	56	33	44	46	69	56	27	208	356	316
21	61	49	56	33	44	46	50	30	27	231	356	318
22	72	49	56	33	44	46	30	30	25	235	356	322
23	86	49	58	33	44	46	30	30	24	235	358	322
24	89	49	60	33	44	44	30	30	24	235	358	324
25	89	50	60	33	44	46	30	30	24	235	358	326
26	89	50	60	33	44	46	30	30	75	235	356	326
27	89	50	60	33	44	46	30	30	106	237	356	326
28	72	50	60	33	44	46	20	30	104	237	356	328
29	58	50	60	33	---	46	14	30	64	237	356	326
30	56	50	60	33	---	46	14	30	22	239	358	326
31	61	---	60	33	---	46	---	30	---	271	358	---
TOTAL	2053	1747	1738	1361	1078	1400	1589	1415	1096	3989	10906	10255
MEAN	66.2	58.2	56.1	43.9	38.5	45.2	53.0	45.6	36.5	129	352	342
MAX	89	66	60	60	44	46	113	100	106	271	358	364
MIN	47	49	50	33	31	44	14	14	22	22	340	316
AC-FT	4070	3470	3450	2700	2140	2780	3150	2810	2170	7910	21630	20340

CAL YR 1980 TOTAL 30406 MEAN 83.1 MAX 281 MIN 15 AC-FT 60310
WTR YR 1981 TOTAL 38627 MEAN 106 MAX 364 MIN 14 AC-FT 76620

09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

LOCATION.--Lat 40°13'03", long 106°18'45", in SE¼ sec.14, T.3 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 45 ft (14 m) downstream from small tributary, 3 mi (5 km) north of Pearmont, 4 mi (6 km) downstream from Rabbit Ear Creek, 5.2 mi (8.4 km) upstream from East Fork, and 12 mi (19 km) northeast of Kremmling.

DRAINAGE AREA.--44.6 mi^2 (115.5 km^2).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,049 ft (2,453.3 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. One diversion above station for irrigation of about 250 acres (1.01 km^2) below. Flow partly regulated during irrigation season by one reservoir, capacity, 1,070 acre-ft (1.32 hm^3) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 29.2 ft^3/s (0.827 m^3/s), 21,160 acre-ft/yr (26.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 507 ft^3/s (14.4 m^3/s) June 20, 1978, gage height, 2.63 ft (0.802 m); maximum gage height, 3.93 ft (1.198 m) Mar. 31, 1965 (backwater from ice); minimum daily discharge, 4.5 ft^3/s (0.13 m^3/s) Dec. 20-24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft^3/s (1.81 m^3/s) at 1100 June 3, gage height, 1.41 ft (0.430 m); maximum gage height, 2.53 ft (0.771 m) at 0100 Jan. 14 (backwater from ice); minimum daily discharge, 8.0 ft^3/s (0.23 m^3/s) Feb. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	11	11	11	9.0	13	18	59	36	14	13
2	13	13	10	11	10	9.0	13	18	57	30	14	13
3	13	13	11	12	9.0	9.0	12	20	59	39	14	14
4	14	13	11	12	9.0	9.0	12	19	58	36	13	12
5	13	13	11	12	9.0	9.0	12	18	53	34	13	12
6	13	13	11	12	9.0	9.0	12	19	51	30	13	13
7	12	13	11	12	9.0	9.0	12	20	52	26	13	12
8	10	13	11	12	9.0	9.0	11	21	51	26	13	13
9	10	12	11	12	9.0	9.0	13	21	51	25	13	13
10	10	12	11	12	9.0	9.0	14	20	53	23	13	14
11	9.7	12	11	12	9.0	9.0	14	21	50	22	13	13
12	10	13	11	12	8.0	9.0	15	21	47	21	14	13
13	10	13	11	12	8.0	9.0	15	21	43	20	15	13
14	10	13	11	12	8.0	9.0	16	21	41	20	14	12
15	11	13	12	12	8.0	9.0	16	21	40	19	14	12
16	11	13	12	12	8.0	9.0	17	22	37	18	14	12
17	10	13	12	12	9.0	9.0	19	23	36	17	13	12
18	10	13	12	12	9.0	9.0	21	22	38	17	13	12
19	10	13	12	12	9.0	9.0	19	23	44	17	13	12
20	10	13	12	12	9.0	9.0	18	23	44	15	13	12
21	11	12	12	12	9.0	9.0	16	24	44	15	13	12
22	14	12	12	12	9.0	10	16	25	43	14	13	12
23	13	13	11	12	9.0	11	16	26	43	14	13	12
24	14	11	11	13	9.0	11	18	27	43	15	12	12
25	15	11	11	13	9.0	11	19	27	43	15	13	12
26	14	11	11	13	9.0	11	19	32	51	15	13	13
27	13	11	11	13	9.0	11	19	42	48	16	12	12
28	14	11	11	13	9.0	11	19	54	45	15	12	12
29	17	11	11	12	---	11	19	53	40	15	12	12
30	15	11	11	12	---	13	18	55	37	15	13	12
31	13	---	11	12	---	14	---	58	---	15	13	---
TOTAL	376.7	371	348	375	250.0	303.0	473	835	1401	663	408	373
MEAN	12.2	12.4	11.2	12.1	8.93	9.77	15.8	26.9	46.7	21.4	13.2	12.4
MAX	17	13	12	13	11	14	21	58	59	39	15	14
MIN	9.7	11	10	11	8.0	9.0	11	18	36	14	12	12
AC-FT	747	736	690	744	496	601	938	1660	2780	1320	809	740

CAL YR 1980 TOTAL 11575.7 MEAN 31.6 MAX 209 MIN 9.7 AC-FT 22960
WTR YR 1981 TOTAL 6176.7 MEAN 16.9 MAX 59 MIN 8.0 AC-FT 12250

09040000 EAST FORK TROUBLESOME CREEK NEAR TROUBLESOME, CO

LOCATION.--Lat 40°09'27", long 106°16'58", in NW¼ sec.7, T.2 N., R.79 W., Grand County, Hydrologic Unit 14010001, on right bank 400 ft (120 m) upstream from mouth and 6.5 mi (10.5 km) north of Troublesome.

DRAINAGE AREA.--76.0 mi² (196.8 km²).

PERIOD OF RECORD.--April 1937 to September 1943, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft (2,338 m), from topographic map. See WSP 1733 for history of changes prior to Oct. 1, 1953. Oct. 1, 1953, to July 21, 1966, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good except those for period of backwater from beaver dam, Oct. 1 to Apr. 16, which are poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 28.1 ft³/s (0.796 m³/s), 20,360 acre-ft/yr (25.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft³/s (22.5 m³/s) May 25, 1978, gage height, 5.66 ft (1.725 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Oct. 3, 1941, Sept. 2, 3, 26, 27, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 226 ft³/s (6.40 m³/s) at 1600 May 30, gage height, 4.59 ft (1.399 m); only peak above base of 170 ft³/s (4.8 m³/s); minimum daily, 0.70 ft³/s (0.020 m³/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.0	5.0	5.0	4.0	4.5	5.7	10	124	7.4	2.3	5.4
2	3.5	5.4	5.0	5.0	4.0	4.5	6.0	17	31	16	2.0	4.1
3	3.5	6.0	5.0	5.0	4.0	4.5	6.0	36	13	31	1.7	4.7
4	3.5	6.0	5.0	5.0	4.0	4.5	6.0	29	8.9	18	1.4	4.5
5	3.5	6.0	5.0	5.0	4.0	4.5	6.0	19	3.8	14	1.1	3.7
6	3.5	6.0	5.0	5.0	4.0	4.5	6.0	17	5.5	10	.89	3.2
7	3.5	6.0	5.0	4.5	4.0	4.5	6.0	18	15	8.0	.82	2.6
8	3.5	6.0	5.0	4.0	4.0	4.5	6.0	15	20	8.1	.74	3.0
9	3.5	6.0	5.0	4.0	4.0	4.5	6.4	14	30	8.2	.70	3.0
10	3.5	6.0	5.0	4.0	4.0	4.5	7.4	14	34	7.3	.70	9.6
11	3.5	6.0	5.0	4.0	4.0	4.5	8.0	18	28	6.6	.79	7.5
12	3.5	6.0	5.0	4.0	4.0	4.5	9.0	21	22	6.2	2.4	5.4
13	3.5	6.0	5.0	4.0	4.0	4.5	10	22	17	7.4	9.0	4.2
14	3.5	6.0	5.0	4.0	4.0	4.5	12	20	21	8.0	6.9	4.0
15	3.5	6.0	5.0	4.0	4.0	4.5	13	20	25	6.2	4.5	4.6
16	3.5	6.0	5.0	4.0	4.0	4.5	14	21	22	5.0	6.9	4.6
17	3.5	6.0	5.0	4.0	4.0	4.5	16	26	18	4.8	5.2	3.8
18	3.5	5.6	5.0	4.0	4.0	4.5	18	25	16	5.3	3.6	3.2
19	3.5	5.2	5.0	4.0	4.0	4.5	12	23	15	5.2	2.7	2.9
20	3.5	5.0	5.0	4.0	4.0	4.5	11	25	13	4.8	2.2	2.7
21	3.7	5.0	5.0	4.0	4.2	4.5	6.8	30	11	3.7	2.1	3.1
22	3.9	5.0	5.0	4.0	4.5	4.5	25	32	9.9	3.0	2.7	4.0
23	4.1	5.0	5.0	4.0	4.5	4.5	25	27	9.1	2.7	3.0	3.5
24	4.4	5.0	5.0	4.0	4.5	4.5	28	13	8.1	2.6	3.7	3.3
25	4.7	5.0	5.0	4.0	4.5	4.5	38	7.5	6.7	3.8	3.4	3.5
26	5.0	5.0	5.0	4.0	4.5	4.5	31	8.3	6.3	4.4	3.8	4.1
27	5.0	5.0	5.0	4.0	4.5	4.5	12	12	8.1	5.7	3.6	3.9
28	5.0	5.0	5.0	4.0	4.5	4.5	6.2	23	22	1.2	2.9	3.7
29	5.0	5.0	5.0	4.0	---	4.5	4.4	36	15	2.4	2.5	3.2
30	5.0	5.0	5.0	4.0	---	4.8	4.6	147	8.6	1.8	2.5	3.0
31	5.0	---	5.0	4.0	---	5.3	---	162	---	1.8	3.3	---
TOTAL	120.8	166.2	155.0	130.5	115.7	140.6	365.5	907.8	587.0	220.6	90.04	122.0
MEAN	3.90	5.54	5.00	4.21	4.13	4.54	12.2	29.3	19.6	7.12	2.90	4.07
MAX	5.0	6.0	5.0	5.0	4.5	5.3	38	162	124	31	9.0	9.6
MIN	3.5	5.0	5.0	4.0	4.0	4.5	4.4	7.5	3.8	1.2	.70	2.6
AC-FT	240	330	307	259	229	279	725	1800	1160	438	179	242

CAL YR 1980 TOTAL 11048.20 MEAN 30.2 MAX 474 MIN 3.5 AC-FT 21910
WTR YR 1981 TOTAL 3121.74 MEAN 8.55 MAX 162 MIN .70 AC-FT 6190

09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'15", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1,800 ft (550 m) downstream from diversion point, 1.4 mi (2.3 km) northwest of Hoosier Pass, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft³/s (2.07 m³/s) Aug. 12-14, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	1.5	13	2.0	14	25
2	.00	.00	.00	.00	.00	.00	.00	2.6	8.3	3.1	13	33
3	.00	.00	.00	.00	.00	.00	.00	3.1	7.7	3.0	13	27
4	.00	.00	.00	.00	.00	.00	.00	2.5	4.8	2.5	13	20
5	.00	.00	.00	.00	.00	.00	.00	2.2	3.8	2.3	13	14
6	.00	.00	.00	.00	.00	.00	.00	2.2	3.8	2.2	12	8.7
7	.00	.00	.00	.00	.00	.00	.00	1.8	3.7	1.8	12	2.8
8	.00	.00	.00	.00	.00	.00	.00	1.4	3.4	.91	12	.00
9	.00	.00	.00	.00	.00	.00	.00	1.2	11	.00	12	.00
10	.00	.00	.00	.00	.00	.00	.00	1.2	50	.00	12	.00
11	.00	.00	.00	.00	.00	.00	.00	.80	62	.00	13	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	14	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	6.1	.00	13	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	6.1	1.9	13	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	14	5.4	13	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	30	3.4	13	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	28	.00	13	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	28	.00	12	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	27	.00	12	.00
20	.00	.00	.00	.00	.00	.00	.00	.10	26	.00	12	.00
21	.00	.00	.00	.00	.00	.00	.00	1.0	26	.00	11	.00
22	.00	.00	.00	.00	.00	.00	.00	1.1	25	.00	11	.00
23	.00	.00	.00	.00	.00	.00	.00	1.1	14	.00	10	.00
24	.00	.00	.00	.00	.00	.00	.00	1.3	4.9	.00	11	.00
25	.00	.00	.00	.00	.00	.00	.00	2.0	4.9	.00	10	.00
26	.00	.00	.00	.00	.00	.00	.00	3.4	4.4	.00	10	.00
27	.00	.00	.00	.00	.00	.00	.00	3.7	.62	.00	10	.00
28	.00	.00	.00	.00	.00	.00	.00	6.1	.00	7.4	9.3	.00
29	.00	.00	.00	.00	.00	.00	.00	27	.75	14	9.1	.00
30	.00	.00	.00	.00	---	.00	.00	25	1.6	14	8.9	.00
31	.00	---	.00	.00	---	.00	---	22	---	14	8.7	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	114.30	450.87	77.91	363.0	130.50
MEAN	.000	.000	.000	.000	.000	.000	.000	3.69	15.0	2.51	11.7	4.35
MAX	.00	.00	.00	.00	.00	.00	.00	27	62	14	14	33
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.7	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	227	894	155	720	259

CAL YR 1980 TOTAL 1471.66 MEAN 4.02 MAX 73 MIN .00 AC-FT 2920
WTR YR 1981 TOTAL 1136.58 MEAN 3.11 MAX 62 MIN .00 AC-FT 2250

09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'50", long 106°04'13", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on Bemrose Creek, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW¼SW¼ sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s (1.25 m³/s) June 21, 1965; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	1.1	5.4	2.2	.42	.24
2	.00	.00	.00	.00	.00	.00	.00	2.2	5.6	2.5	.42	.24
3	.00	.00	.00	.00	.00	.00	.00	2.2	5.4	2.3	.42	.18
4	.00	.00	.00	.00	.00	.00	.00	2.2	5.9	2.1	.42	.18
5	.00	.00	.00	.00	.00	.00	.00	2.2	5.6	2.1	.42	.18
6	.00	.00	.00	.00	.00	.00	.00	2.2	6.3	2.0	.42	.18
7	.00	.00	.00	.00	.00	.00	.00	2.1	7.0	2.0	.36	.18
8	.00	.00	.00	.00	.00	.00	.00	1.7	5.9	2.0	.36	.18
9	.00	.00	.00	.00	.00	.00	.00	1.5	6.1	1.5	.30	.18
10	.00	.00	.00	.00	.00	.00	.00	1.9	5.7	1.5	.30	.18
11	.00	.00	.00	.00	.00	.00	.00	1.6	5.4	1.3	.30	.60
12	.00	.00	.00	.00	.00	.00	.00	1.4	4.8	1.5	.30	.78
13	.00	.00	.00	.00	.00	.00	.00	1.5	4.5	1.4	.30	.78
14	.00	.00	.00	.00	.00	.00	.00	1.4	4.0	1.5	.30	.78
15	.00	.00	.00	.00	.00	.00	.00	1.4	4.0	2.0	.30	.78
16	.00	.00	.00	.00	.00	.00	.00	1.4	3.7	2.2	.30	.69
17	.00	.00	.00	.00	.00	.00	.00	1.4	3.3	1.9	.30	.60
18	.00	.00	.00	.00	.00	.00	.00	1.5	3.3	1.6	.30	.60
19	.00	.00	.00	.00	.00	.00	.00	1.6	3.0	1.5	.30	.60
20	.00	.00	.00	.00	.00	.00	.00	1.5	3.0	1.3	.30	.29
21	.00	.00	.00	.00	.00	.00	.00	1.5	2.9	1.2	.30	.00
22	.00	.00	.00	.00	.00	.00	.00	1.3	2.7	.87	.30	.00
23	.00	.00	.00	.00	.00	.00	.00	1.4	2.6	.54	.30	.00
24	.00	.00	.00	.00	.00	.00	.00	1.6	2.6	.48	.30	.00
25	.00	.00	.00	.00	.00	.00	.00	1.7	2.6	.48	.30	.00
26	.00	.00	.00	.00	.00	.00	.00	2.0	2.2	.48	.30	.00
27	.00	.00	.00	.00	.00	.00	.00	2.5	1.7	.48	.30	.00
28	.00	.00	.00	.00	.00	.00	.00	3.2	1.7	.42	.30	.00
29	.00	.00	.00	.00	---	.00	.00	4.5	2.0	.42	.30	.00
30	.00	.00	.00	.00	---	.00	.00	4.8	2.2	.42	.24	.00
31	.00	---	.00	.00	---	.00	---	5.7	---	.42	.24	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	64.2	121.1	42.61	10.02	8.42
MEAN	.000	.000	.000	.000	.000	.000	.000	2.07	4.04	1.37	.32	.28
MAX	.00	.00	.00	.00	.00	.00	.00	5.7	7.0	2.5	.42	.78
MIN	.00	.00	.00	.00	.00	.00	.00	1.1	1.7	.42	.24	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	127	240	85	20	17

CAL YR 1980 TOTAL 834.04 MEAN 2.28 MAX 42 MIN .00 AC-FT 1650
WTR YR 1981 TOTAL 246.35 MEAN .67 MAX 7.0 MIN .00 AC-FT 489

09044800 MCCULLOUGH-SPRUCE-CRYSTAL DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'14", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on McCullough Gulch, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1961, published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from McCullough Gulch and Spruce and Crystal Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in secs.14, 23, and 26, T.7 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 123 ft³/s (3.48 m³/s) June 20, 1968; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	4.7	28	30	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	11	28	42	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	13	30	34	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	10	28	27	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	7.8	35	22	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	7.0	50	21	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	5.6	53	21	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	4.7	47	9.6	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	4.0	53	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	3.6	64	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	3.3	82	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	1.5	64	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	47	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	33	6.7	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	20	21	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	15	19	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.11	26	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	1.4	33	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	2.2	37	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	2.3	35	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	2.7	33	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	4.0	32	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	6.5	23	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	8.3	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	26	7.0	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	25	22	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	32	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	202.71	978.00	253.30	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	6.54	32.6	8.17	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	32	82	42	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	402	1940	502	.00	.00

CAL YR 1980 TOTAL 508.65 MEAN 1.39 MAX 26 MIN .00 AC-FT 1010
WTR YR 1981 TOTAL 1434.01 MEAN 3.93 MAX 82 MIN .00 AC-FT 2840

09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°32'55", long 106°02'19", in NW¼NE¼ sec.7, T.6 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.2 mi (0.3 km) downstream from Swan River and 5.5 mi (8.8 km) south of Dillon.

DRAINAGE AREA.--119 mi^2 (308 km^2).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,120 ft (2,780 m), from topographic map.

REMARKS.--Records good. Transmountain diversions above station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 97.4 ft^3/s (2.758 m^3/s), 70,570 acre-ft/yr (87.0 hm^3/yr), including diversion to Hoosier Pass tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft^3/s (35.4 m^3/s) June 17, 1965, gage height, 5.38 ft (1.640 m), from rating curve extended above 610 ft^3/s (17 m^3/s); minimum daily, 17 ft^3/s (0.48 m^3/s) Mar. 21, 1961, Feb. 24-26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 239 ft^3/s (6.77 m^3/s) at 1000 June 8, gage height, 3.49 ft (1.064 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Feb. 11, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	47	37	30	24	23	26	60	128	114	77	60
2	49	46	37	30	24	23	27	60	138	98	76	63
3	48	46	37	30	24	23	27	64	147	92	78	63
4	48	45	37	30	24	24	27	70	167	94	76	61
5	47	45	37	30	23	24	26	76	188	90	73	62
6	45	45	37	30	23	24	26	73	197	83	68	60
7	46	45	37	30	23	24	27	69	213	79	64	60
8	46	45	37	28	23	24	27	66	237	75	61	64
9	45	45	37	28	23	24	27	62	233	72	58	67
10	45	45	36	28	23	24	28	58	232	72	57	70
11	47	44	34	27	22	24	30	56	224	77	58	79
12	48	45	34	27	23	24	31	53	203	88	62	102
13	46	45	34	26	22	24	32	52	182	91	68	116
14	46	45	34	26	22	24	33	51	166	97	74	110
15	47	45	33	25	23	24	33	51	153	103	82	101
16	48	44	33	25	23	24	34	52	144	97	84	94
17	50	43	33	25	23	25	36	53	134	85	82	87
18	51	42	33	25	23	24	37	56	124	83	84	81
19	51	41	33	25	23	24	40	57	117	106	82	77
20	51	40	32	25	23	25	43	61	109	111	76	72
21	51	39	32	25	24	25	44	62	104	102	71	68
22	51	38	32	25	23	25	44	57	97	93	68	66
23	51	38	32	25	23	25	43	57	92	86	69	64
24	50	38	32	25	23	25	42	58	87	82	67	63
25	51	38	33	25	23	25	42	58	85	79	66	61
26	50	37	33	24	24	25	45	60	81	77	63	60
27	50	38	32	24	24	26	49	63	80	80	61	58
28	50	38	31	24	24	26	54	72	82	88	60	57
29	48	37	31	24	---	26	58	91	101	95	63	55
30	50	37	31	24	---	26	59	113	118	87	62	54
31	46	---	30	24	---	26	---	127	---	80	60	---
TOTAL	1502	1266	1051	819	649	759	1097	2018	4363	2756	2150	2155
MEAN	48.5	42.2	33.9	26.4	23.2	24.5	36.6	65.1	145	88.9	69.4	71.8
MAX	51	47	37	30	24	26	59	127	237	114	84	116
MIN	45	37	30	24	22	23	26	51	80	72	57	54
AC-FT	2980	2510	2080	1620	1290	1510	2180	4000	8650	5470	4260	4270

CAL YR 1980 TOTAL 41122 MEAN 112 MAX 836 MIN 21 AC-FT 81570
WTR YR 1981 TOTAL 20585 MEAN 56.4 MAX 237 MIN 22 AC-FT 40830

09047500 SNAKE RIVER NEAR MONTEZUMA, CO

LOCATION.--Lat 39°36'20", long 105°56'33", in NW¼ sec.19, T.5 S., R.76 W. (projected), Summit County, Hydrologic Unit 14010002, on right bank 200 ft (61 m) downstream from North Fork and 4.5 mi (7.2 km) northwest of Montezuma.

DRAINAGE AREA.--57.7 mi^2 (149 km^2).

PERIOD OF RECORD.--July 1942 to September 1946, October 1951 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,320 ft (2,841 m), from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation and domestic use. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 59.3 ft^3/s (1.679 m^3/s), 42,960 acre-ft/yr (53.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft^3/s (35.4 m^3/s) June 10, 1952, gage height, 3.51 ft (1.070 m); maximum gage height, 3.88 ft (1.183 m) June 6, 1972; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 326 ft^3/s (9.23 m^3/s) at 2000 June 7, gage height, 2.77 ft (0.844 m), no peak above base of 500 ft^3/s (14 m^3/s); minimum daily, 9.0 ft^3/s (0.25 m^3/s) Feb. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	15	15	12	10	10	62	154	72	41	42
2	22	23	15	15	12	10	10	66	164	84	39	37
3	22	23	15	15	12	10	10	74	170	86	38	36
4	21	21	15	15	12	10	10	63	181	72	37	35
5	20	21	15	15	12	10	10	57	193	69	35	36
6	20	21	15	15	12	10	10	51	220	65	34	35
7	21	21	15	15	12	10	10	45	243	66	33	34
8	22	20	15	14	12	10	11	39	243	76	32	33
9	21	20	15	14	12	10	11	38	247	78	33	36
10	21	20	15	13	12	10	12	38	225	91	38	38
11	21	20	15	12	12	10	12	37	210	76	41	44
12	21	20	15	12	11	10	12	34	192	91	47	39
13	22	20	15	12	10	10	13	34	170	89	46	38
14	22	20	15	12	9.0	10	13	36	147	75	40	37
15	25	20	15	12	9.0	10	14	38	127	69	43	37
16	22	19	15	12	9.0	10	15	35	113	72	47	34
17	23	18	15	12	9.0	10	18	35	106	70	49	34
18	23	18	15	12	9.0	10	21	34	101	66	43	33
19	25	17	15	12	9.5	10	20	38	98	61	40	33
20	26	16	15	12	10	10	19	42	98	55	40	32
21	23	15	15	12	10	10	19	41	96	52	41	33
22	23	15	15	12	10	10	18	39	92	51	41	32
23	23	15	15	12	10	10	21	42	88	49	39	31
24	23	15	15	12	10	10	27	47	85	50	38	30
25	23	15	15	12	10	10	32	53	81	49	37	30
26	23	15	15	12	10	10	38	67	81	50	39	29
27	23	15	15	12	10	10	40	83	84	50	42	28
28	24	15	15	12	10	10	43	110	81	46	38	28
29	23	15	15	12	---	10	50	129	76	43	37	28
30	23	15	15	12	---	10	54	130	73	41	35	27
31	23	---	15	12	---	10	---	149	---	42	38	---
TOTAL	696	551	465	398	297.5	310	603	1786	4239	2006	1221	1019
MEAN	22.5	18.4	15.0	12.8	10.6	10.0	20.1	57.6	141	64.7	39.4	34.0
MAX	26	23	15	15	12	10	54	149	247	91	49	44
MIN	20	15	15	12	9.0	10	10	34	73	41	32	27
AC-FT	1380	1090	922	789	590	615	1200	3540	8410	3980	2420	2020

CAL YR 1980 TOTAL 24961.0 MEAN 68.2 MAX 576 MIN 11 AC-FT 49510
WTR YR 1981 TOTAL 13591.5 MEAN 37.2 MAX 247 MIN 9.0 AC-FT 26960

NOTE.--NO GAGE-HEIGHT RECORD NOV. 23 TO APR. 15.

09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE¼NE¼ sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi (1.1 km) upstream from mouth and 4.7 mi (7.6 km) southeast of Dillon.

DRAINAGE AREA.--9.10 mi^2 (23.6 km^2).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,350 ft (2,850 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 5.49 ft^3/s (0.155 m^3/s), 3,980 acre-ft/yr (4.91 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft^3/s (2.55 m^3/s) June 5, 1958, gage height, 2.75 ft (0.838 m), from rating curve extended above 28 ft^3/s (0.80 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) at 2200 June 6, gage height, 2.07 ft (0.631 m), no peak above base of 35 ft^3/s (0.99 m^3/s), maximum gage height, 2.77 ft (0.844 m) at 0300 Nov. 17 (backwater from ice); minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Sept. 22-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.0	2.5	2.5	2.2	2.2	2.2	6.2	8.2	4.4	2.7	2.6
2	2.8	3.0	2.5	2.5	2.2	2.2	2.2	6.1	8.2	4.5	2.7	2.3
3	2.8	2.9	2.5	2.5	2.2	2.2	2.2	8.0	9.1	4.3	2.6	2.2
4	2.7	2.7	2.5	2.5	2.2	2.2	2.2	6.9	12	3.8	2.6	2.2
5	2.7	2.8	2.5	2.5	2.2	2.2	2.2	6.1	9.9	3.7	2.5	2.3
6	2.7	2.8	2.5	2.4	2.2	2.2	2.3	5.8	9.7	3.6	2.5	2.3
7	2.8	2.7	2.5	2.3	2.2	2.2	2.4	5.1	9.5	3.7	2.4	2.2
8	2.8	2.7	2.5	2.2	2.2	2.2	2.5	4.7	8.9	4.9	2.3	2.2
9	2.8	2.7	2.5	2.2	2.2	2.2	2.6	4.5	8.6	4.4	2.3	2.3
10	2.8	2.8	2.5	2.2	2.2	2.2	2.7	4.9	8.2	4.2	2.7	2.5
11	2.8	2.9	2.5	2.2	2.2	2.2	2.7	4.4	7.9	4.0	2.7	3.1
12	2.7	2.7	2.5	2.2	2.1	2.2	2.8	4.4	7.5	4.1	3.1	2.4
13	2.7	2.7	2.5	2.2	2.0	2.2	2.9	4.5	7.1	4.2	3.0	2.3
14	2.8	2.7	2.5	2.2	2.0	2.2	3.0	4.4	6.8	3.8	2.7	2.1
15	3.0	2.9	2.5	2.2	2.0	2.2	3.2	4.3	6.7	3.4	2.9	2.1
16	2.7	2.9	2.5	2.2	2.0	2.2	3.3	4.1	6.4	3.9	2.7	2.1
17	2.9	2.9	2.5	2.2	2.0	2.2	3.6	4.1	6.0	4.1	2.7	2.0
18	2.9	2.9	2.5	2.2	2.0	2.2	4.1	4.1	5.6	3.9	2.5	2.0
19	2.9	2.9	2.5	2.2	2.1	2.2	4.2	4.6	5.4	3.5	2.4	2.0
20	3.4	2.9	2.5	2.2	2.2	2.2	3.7	4.8	5.1	3.2	2.3	2.0
21	3.4	2.8	2.5	2.2	2.2	2.2	3.4	4.9	4.9	3.0	2.4	2.0
22	3.4	2.7	2.5	2.2	2.2	2.2	3.2	4.5	4.7	3.0	2.4	1.9
23	3.4	2.6	2.5	2.2	2.2	2.2	3.7	4.9	4.5	2.9	2.4	1.9
24	3.5	2.6	2.5	2.2	2.2	2.2	4.4	5.0	4.3	2.9	2.3	1.9
25	3.4	2.5	2.5	2.2	2.2	2.2	4.9	5.3	4.1	2.9	2.3	1.9
26	3.0	2.5	2.5	2.2	2.2	2.2	5.4	6.0	4.1	3.0	2.3	1.9
27	2.9	2.5	2.5	2.2	2.2	2.2	5.2	6.4	4.4	3.2	2.4	1.9
28	3.0	2.5	2.5	2.2	2.2	2.2	5.4	7.0	4.4	2.8	2.2	1.9
29	3.0	2.5	2.5	2.2	---	2.2	5.6	8.3	4.3	2.7	2.2	1.9
30	3.0	2.5	2.5	2.2	---	2.2	5.8	7.7	4.3	2.7	2.2	1.9
31	3.0	---	2.5	2.2	---	2.2	---	8.2	---	2.7	2.3	---
TOTAL	91.5	82.2	77.5	70.0	60.2	68.2	104.0	170.2	200.8	111.4	77.7	64.3
MEAN	2.95	2.74	2.50	2.26	2.15	2.20	3.47	5.49	6.69	3.59	2.51	2.14
MAX	3.5	3.0	2.5	2.5	2.2	2.2	5.8	8.3	12	4.9	3.1	3.1
MIN	2.7	2.5	2.5	2.2	2.0	2.2	2.2	4.1	4.1	2.7	2.2	1.9
AC-FT	181	163	154	139	119	135	206	338	398	221	154	128

CAL YR 1980 TOTAL 2650.8 MEAN 7.24 MAX 59 MIN 1.5 AC-FT 5260
WTR YR 1981 TOTAL 1178.0 MEAN 3.23 MAX 12 MIN 1.9 AC-FT 2340

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 15.

09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO

LOCATION (REVISED).--Lat 39°34'35", long 106°06'30", in SE¼NW¼ sec.34, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 220 ft (67 m) upstream from bridge on U.S. Highway 6, 160 ft (49 m) downstream from North Tenmile Creek, and 0.6 mi (1.0 km) west of Frisco.

DRAINAGE AREA.--93.3 mi² (241.6 km²).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as "below North Fork, at Frisco." Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

GAGE.--Water-stage recorder. Altitude of gage is 9,100 ft (2,774 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by a few small diversions above station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm³) in Eagle River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 92.2 ft³/s (2.611 m³/s), 66,800 acre-ft/yr (82.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft³/s (54.1 m³/s) June 16, 1965, gage height, 6.15 ft (1.875 m), from rating curve extended above 750 ft³/s (21 m³/s); minimum daily, 7 ft³/s (0.20 m³/s) Mar. 8, 14, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 814 ft³/s (23.1 m³/s) at 2300 June 9, gage height, 3.12 ft (0.951 m), only peak above base of 700 ft³/s (20 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) Feb. 9-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	41	25	13	11	13	14	123	355	110	65	45
2	28	40	25	13	11	13	14	140	371	144	60	39
3	28	40	25	12	11	13	14	172	398	123	56	41
4	27	41	25	11	11	13	14	140	486	108	53	41
5	26	40	25	11	11	13	14	130	548	99	47	38
6	27	41	25	11	11	14	14	110	576	93	44	44
7	26	41	25	11	11	15	15	98	604	90	42	48
8	26	40	25	11	11	16	16	90	636	91	43	50
9	27	37	23	11	10	16	16	78	587	91	44	64
10	27	34	21	11	10	16	16	70	526	93	50	76
11	28	37	19	11	10	16	17	60	429	88	58	131
12	28	38	18	11	10	16	18	52	398	134	59	98
13	26	38	18	11	10	16	19	54	371	146	76	86
14	29	37	17	11	10	16	22	56	301	119	63	74
15	33	36	15	11	10	16	24	62	254	102	64	66
16	32	34	15	11	11	15	26	66	228	123	66	63
17	34	33	15	11	11	14	28	66	202	131	59	58
18	35	32	15	11	11	13	30	66	193	131	51	53
19	35	31	15	11	11	14	34	66	185	112	45	52
20	35	29	15	11	11	14	37	66	190	91	44	50
21	36	28	15	11	11	14	38	68	177	85	40	51
22	36	27	15	11	12	14	36	68	170	76	41	49
23	36	26	15	11	13	14	38	70	158	72	42	47
24	39	26	15	11	13	14	37	80	142	66	39	46
25	41	26	16	11	13	14	56	100	129	68	40	46
26	38	26	16	11	13	14	66	130	125	78	42	46
27	38	26	15	11	13	14	76	170	136	79	45	44
28	40	26	14	11	13	14	74	244	144	68	42	44
29	40	26	13	11	---	14	94	238	123	65	38	42
30	39	25	13	11	---	14	106	286	110	63	38	42
31	38	---	13	11	---	14	---	312	---	61	42	---
TOTAL	1007	1002	566	346	314	446	1023	3531	9252	3000	1538	1674
MEAN	32.5	33.4	18.3	11.2	11.2	14.4	34.1	114	308	96.8	49.6	55.8
MAX	41	41	25	13	13	16	106	312	636	146	76	131
MIN	26	25	13	11	10	13	14	52	110	61	38	38
AC-FT	2000	1990	1120	686	623	885	2030	7000	18350	5950	3050	3320

CAL YR 1980 TOTAL 37013 MEAN 101 MAX 799 MIN 13 AC-FT 73420
WTR YR 1981 TOTAL 23699 MEAN 64.9 MAX 636 MIN 10 AC-FT 47010

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 20.

09050700 BLUE RIVER BELOW DILLON, CO

LOCATION.--Lat 39°37'32", long 106°03'57", in SE¼SE¼ sec.12, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi (0.5 km) downstream from Dillon Dam, 0.1 mi (0.2 km) upstream from Straight Creek, and 1.1 mi (1.8 km) west of Dillon.

DRAINAGE AREA.--335 mi² (868 km²).

PERIOD OF RECORD.--January 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,760 ft (2,670 m), from topographic map.

REMARKS.--Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi (0.5 km) upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions above station for irrigation of about 400 acres (1.62 km²) of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years (water years 1964-81), 183 ft³/s (5.183 m³/s), 132,600 acre-ft/yr (163 hm³/yr), since completion of Dillon Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) May 23, 1970, gage height, 3.63 ft (1.106 m); maximum gage height, 3.68 ft (1.122 m) June 26, 1971; no flow Sept. 4 to Nov. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 193 ft³/s (5.47 m³/s) at 1200 May 11 to 0900 May 13, gage height, 1.32 ft (0.402 m); minimum daily, 16 ft³/s (0.45 m³/s) Oct. 21-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	157	74	65	56	50	65	56	51	51	51	53
2	123	168	79	65	56	50	65	56	51	51	51	53
3	112	149	79	65	56	50	65	56	51	51	51	53
4	106	157	79	65	56	50	65	26	51	51	51	53
5	98	157	79	65	56	58	63	16	50	51	51	53
6	95	154	79	63	56	67	63	25	50	50	51	53
7	95	154	79	63	56	70	63	56	50	50	51	53
8	95	154	79	58	56	65	63	56	50	50	51	53
9	95	154	79	56	56	63	63	56	50	50	51	53
10	92	154	79	56	58	60	63	55	50	50	51	53
11	98	109	79	56	67	56	63	129	50	51	51	53
12	95	87	79	56	67	53	63	193	50	51	51	53
13	98	87	79	53	67	53	67	179	50	51	51	51
14	109	95	76	50	67	53	76	175	50	51	51	51
15	91	101	76	50	67	53	95	165	50	51	51	51
16	87	89	76	50	67	51	129	161	50	53	51	51
17	115	81	70	50	67	48	136	161	50	53	51	51
18	126	58	67	50	67	48	136	161	50	53	51	51
19	126	56	72	51	67	48	133	157	51	53	51	51
20	48	63	74	51	63	48	140	95	51	53	51	51
21	16	63	74	51	58	50	101	51	51	53	53	51
22	16	63	74	51	58	50	56	51	51	51	53	51
23	16	63	81	51	58	50	56	51	51	51	53	51
24	16	63	84	51	55	50	56	51	53	53	53	53
25	16	63	84	51	51	50	56	51	53	53	53	53
26	16	63	84	51	51	50	56	51	53	53	53	53
27	16	65	79	51	51	56	56	51	51	53	53	51
28	16	65	74	51	50	67	53	51	51	53	53	51
29	16	65	74	51	---	67	56	51	51	51	53	53
30	16	65	70	56	---	67	56	51	51	51	53	53
31	64	---	65	56	---	67	---	51	---	51	53	---
TOTAL	2251	3022	2376	1709	1660	1718	2278	2595	1522	1598	1603	1564
MEAN	72.6	101	76.6	55.1	59.3	55.4	75.9	83.7	50.7	51.5	51.7	52.1
MAX	126	168	84	65	67	70	140	193	53	53	53	53
MIN	16	56	65	50	50	48	53	16	50	50	51	51
AC-FT	4460	5990	4710	3390	3290	3410	4520	5150	3020	3170	3180	3100

CAL YR 1980 TOTAL 97637 MEAN 267 MAX 1370 MIN 16 AC-FT 193700
WTR YR 1981 TOTAL 23896 MEAN 65.5 MAX 193 MIN 16 AC-FT 47400

09052000 ROCK CREEK NEAR DILLON, CO

LOCATION.--Lat 39°43'23", long 106°07'41", in NE¼ sec.9, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 500 ft (150 m) upstream from bridge on State Highway 9, 1,100 ft (340 m) upstream from mouth, 1,200 ft (370 m) downstream from confluence of North and South Rock Creeks, and 8 mi (13 km) northwest of Dillon.

DRAINAGE AREA.--15.8 mi² (40.9 km²).

PERIOD OF RECORD.--July 1942 to September 1956, October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,502.52 ft (2,591.568 m) (Colorado Highway Department datum). Prior to Apr. 21, 1943, nonrecording gage, and Apr. 21, 1943, to Sept. 13, 1950, water-stage recorder, at site 500 ft (150 m) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good except those for winter period, which are poor. A few small diversions for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years (water years 1943-56, 1967-81), 22.6 ft³/s (0.640 m³/s), 16,370 acre-ft/yr (20.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 289 ft³/s (8.18 m³/s) June 10, 1973, gage height, 4.35 ft (1.326 m), from rating curve extended above 154 ft³/s (4.4 m³/s); maximum gage height, 4.36 ft (1.329 m) June 24, 1971; minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Apr. 13, 17, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft³/s (4.70 m³/s) at 2300 June 9, gage height, 4.02 ft (1.225 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 3.5 ft³/s (0.099 m³/s) Feb. 12-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	8.3	5.1	4.5	4.0	4.0	4.5	32	71	32	14	16
2	7.1	8.7	4.9	4.5	4.0	4.0	4.5	40	72	53	14	13
3	6.7	7.2	4.2	4.5	4.0	4.0	4.5	64	85	50	13	12
4	6.9	6.3	3.9	4.5	4.0	4.0	4.5	38	90	41	13	11
5	6.7	6.7	3.9	4.5	4.0	4.0	4.5	27	83	35	13	11
6	6.6	7.0	4.2	4.5	4.0	4.0	4.8	23	103	32	12	12
7	6.4	7.1	4.5	4.5	4.0	4.0	5.2	19	115	31	12	12
8	6.3	7.1	4.7	4.5	4.0	4.0	5.6	16	117	36	11	13
9	6.4	6.7	5.0	4.5	4.0	4.0	6.0	14	125	37	11	16
10	6.4	7.1	5.0	4.5	4.0	4.0	6.4	13	115	61	12	21
11	6.2	7.0	5.0	4.5	4.0	4.0	6.8	12	107	40	17	33
12	6.2	6.4	5.0	4.5	3.5	4.0	7.3	11	92	39	15	24
13	6.7	6.8	5.0	4.5	3.5	4.0	7.8	11	76	54	20	20
14	6.8	7.3	5.0	4.5	3.5	4.0	8.2	11	62	38	18	16
15	8.6	7.2	5.0	4.5	3.5	4.0	9.0	12	40	30	16	14
16	8.0	7.0	5.0	4.5	3.5	4.0	9.8	12	30	39	15	13
17	8.5	7.0	5.0	4.5	3.5	4.0	11	12	30	47	13	12
18	8.4	7.0	5.0	4.5	3.5	4.0	13	13	33	49	12	11
19	8.2	7.0	5.0	4.5	3.5	4.0	14	13	32	35	10	10
20	8.7	7.0	5.0	4.5	3.8	4.0	13	14	42	30	11	9.7
21	8.6	6.8	5.0	4.5	4.0	4.0	12	15	52	26	11	11
22	8.4	6.6	5.0	4.5	4.0	4.0	11	15	55	23	16	12
23	8.2	6.4	5.0	4.5	4.0	4.0	9.8	16	48	21	15	11
24	7.8	6.3	5.0	4.5	4.0	4.0	13	17	47	20	13	11
25	7.6	6.1	5.0	4.5	4.0	4.0	17	20	45	19	13	11
26	7.2	6.0	4.7	4.5	4.0	4.1	22	32	44	20	12	12
27	6.9	5.8	4.5	4.5	4.0	4.2	23	44	50	21	11	10
28	7.2	5.6	4.5	4.5	4.0	4.3	23	63	60	18	10	9.7
29	7.6	5.4	4.5	4.5	---	4.3	27	75	44	16	10	9.2
30	7.8	5.3	4.5	4.5	---	4.4	30	68	33	14	10	9.1
31	8.3	---	4.5	4.0	---	4.5	---	74	---	14	12	---
TOTAL	229.1	202.2	147.6	139.0	107.8	125.8	338.2	846	1998	1021	405	405.7
MEAN	7.39	6.74	4.76	4.48	3.85	4.06	11.3	27.3	66.6	32.9	13.1	13.5
MAX	8.7	8.7	5.1	4.5	4.0	4.5	30	75	125	61	20	33
MIN	6.2	5.3	3.9	4.0	3.5	4.0	4.5	11	30	14	10	9.1
AC-FT	454	401	293	276	214	250	671	1680	3960	2030	803	805

CAL YR 1980	TOTAL	9389.9	MEAN 25.7	MAX 172	MIN 3.0	AC-FT	18620
WTR YR 1981	TOTAL	5965.4	MEAN 16.3	MAX 125	MIN 3.5	AC-FT	11830

NOTE.--NO GAGE-HEIGHT RECORD DEC. 7 TO APR. 16.

09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°43'41", long 106°10'22", in SW¼SW¼ sec.6, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank 1.2 mi (1.9 km) downstream from Boulder Lake, 3.2 mi (5.1 km) upstream from mouth, and 9.4 mi (15.1 km) northwest of Dillon.

DRAINAGE AREA.--8.56 mi² (22.2 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,460 ft (2,883 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 16.0 ft³/s (0.453 m³/s), 11,590 acre-ft/yr (14.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft³/s (7.19 m³/s) July 4, 1975, gage height, 3.27 ft (0.997 m); minimum daily, 0.80 ft³/s (0.023 m³/s) Jan. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 163 ft³/s (4.62 m³/s) at 2100 June 9, gage height, 2.84 ft (0.866 m); only peak above base of 120 ft³/s (3.4 m³/s); minimum daily, 1.5 ft³/s (0.042 m³/s) Feb. 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.5	2.0	1.8	1.8	1.7	2.3	20	47	35	9.4	15
2	4.8	3.5	2.0	1.8	1.8	1.7	2.3	24	51	47	8.5	12
3	4.6	3.5	2.0	1.8	1.8	1.7	2.3	35	58	46	7.6	11
4	4.6	3.5	2.0	1.8	1.8	1.7	2.3	26	66	40	6.8	9.6
5	4.2	3.5	2.0	1.8	1.8	1.7	2.3	20	67	33	6.2	9.6
6	4.2	3.5	2.0	1.8	1.8	1.7	2.3	16	87	33	5.5	10
7	4.2	3.5	2.0	1.8	1.8	1.7	2.6	13	105	30	5.0	10
8	4.1	3.5	2.0	1.8	1.8	1.7	2.9	11	105	33	5.2	11
9	4.1	3.5	2.0	1.8	1.8	1.7	3.3	9.6	117	33	5.6	11
10	4.1	3.5	2.0	1.8	1.8	1.7	3.7	8.3	105	45	5.4	12
11	4.5	3.5	1.9	1.8	1.8	1.7	4.1	8.3	96	33	5.2	16
12	4.9	3.5	1.8	1.8	1.5	1.7	4.7	7.8	84	31	5.0	14
13	5.4	3.5	1.8	1.8	1.5	1.7	5.2	7.2	66	36	5.4	13
14	6.0	3.5	1.8	1.8	1.5	1.7	5.8	6.9	51	31	5.8	12
15	6.6	3.5	1.8	1.8	1.5	1.7	6.6	7.5	33	27	6.6	10
16	7.5	3.4	1.8	1.8	1.6	1.7	7.4	7.5	27	31	7.2	9.6
17	8.4	3.3	1.8	1.8	1.6	1.8	8.4	7.5	30	38	8.0	8.9
18	9.0	3.1	1.8	1.8	1.7	1.9	9.4	7.5	35	39	7.4	8.6
19	9.0	3.0	1.8	1.8	1.7	2.0	11	7.5	34	30	6.6	8.0
20	9.0	2.9	1.8	1.8	1.7	2.0	12	8.0	45	26	6.0	7.5
21	8.0	2.8	1.8	1.8	1.7	2.0	11	8.6	53	21	6.4	7.5
22	7.0	2.7	1.8	1.8	1.7	2.0	10	8.9	53	19	6.8	7.8
23	6.0	2.6	1.8	1.8	1.7	2.0	10	9.2	46	17	7.2	7.2
24	5.2	2.5	1.8	1.8	1.7	2.0	9.6	10	47	16	7.6	7.2
25	4.5	2.4	1.8	1.8	1.7	2.0	9.2	14	46	15	8.0	7.2
26	4.0	2.3	1.8	1.8	1.7	2.0	12	22	43	14	8.5	7.5
27	3.5	2.2	1.8	1.8	1.7	2.0	14	30	50	16	9.0	7.2
28	3.5	2.2	1.8	1.8	1.7	2.2	14	39	62	14	8.6	6.6
29	3.5	2.1	1.8	1.8	---	2.3	16	48	46	13	8.0	6.3
30	3.5	2.0	1.8	1.8	---	2.3	19	46	36	12	8.6	6.1
31	3.5	---	1.8	1.8	---	2.3	---	51	---	10	11	---
TOTAL	166.2	92.0	57.9	55.8	47.7	58.0	225.7	545.3	1791	864	218.1	289.4
MEAN	5.36	3.07	1.87	1.80	1.70	1.87	7.52	17.6	59.7	27.9	7.04	9.65
MAX	9.0	3.5	2.0	1.8	1.8	2.3	19	51	117	47	11	16
MIN	3.5	2.0	1.8	1.8	1.5	1.7	2.3	6.9	27	10	5.0	6.1
AC-FT	330	182	115	111	95	115	448	1080	3550	1710	433	574

CAL YR 1980 TOTAL 7202.0 MEAN 19.7 MAX 155 MIN 1.1 AC-FT 14290
WTR YR 1981 TOTAL 4411.1 MEAN 12.1 MAX 117 MIN 1.5 AC-FT 8750

NOTE.--NO GAGE-HEIGHT RECORD OCT. 11 TO APR. 24, JULY 26 TO AUG. 28.

09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°45'47", long 106°11'31", in SW¼NW¼ sec.25, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on left bank 0.2 mi (0.3 km) upstream from unnamed tributary, 2.7 mi (4.3 km) upstream from mouth, and 12 mi (19.3 km) northwest of Dillon.

DRAINAGE AREA.--14.2 mi² (36.8 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,040 ft (2,755 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 24.6 ft³/s (0.697 m³/s) 17,820 acre-ft/yr (22.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266 ft³/s (7.53 m³/s) June 19, 1974, gage height, 5.56 ft (1.695 m), from rating curve extended above 170 ft³/s (4.8 m³/s); maximum gage height, 6.56 ft (1.999 m) May 2, 1975 (backwater from beaver dam and ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Mar. 14, 1974, Jan. 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 225 ft³/s (6.37 m³/s) at 2400 June 9, gage height, 4.89 ft (1.490 m); only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 2.0 ft³/s (0.057 m³/s) Feb. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	5.7	3.9	2.7	3.1	2.2	3.0	34	81	59	18	30
2	6.1	5.1	3.6	2.6	3.2	2.2	3.0	43	87	95	18	35
3	6.1	4.6	3.6	2.6	3.1	2.2	3.0	66	100	105	16	31
4	6.0	4.6	3.6	2.6	3.1	2.2	3.0	57	121	75	16	26
5	5.6	4.6	3.6	2.6	3.0	2.2	3.0	39	122	60	15	25
6	5.6	4.5	3.9	2.4	3.0	2.2	3.2	32	142	56	14	28
7	5.4	4.7	3.8	2.4	2.9	2.2	3.3	26	156	50	13	31
8	5.4	4.6	3.8	2.3	2.7	2.2	3.4	20	157	57	13	34
9	5.2	4.5	3.7	2.3	2.3	2.2	3.6	16	172	56	12	34
10	5.2	4.5	3.8	2.3	2.1	2.2	4.0	13	162	92	12	34
11	5.1	4.4	3.7	2.2	2.0	2.2	5.2	12	155	62	21	32
12	5.1	4.5	3.6	2.3	2.0	2.2	6.0	11	135	60	18	30
13	5.3	4.8	3.6	2.7	2.0	2.2	7.0	11	108	70	30	27
14	5.6	5.2	3.6	3.0	2.1	2.2	8.5	10	85	54	28	25
15	6.6	5.2	3.5	3.3	2.2	2.3	10	11	47	44	22	24
16	7.1	5.1	3.5	3.4	2.2	2.3	12	11	35	46	24	24
17	7.5	5.0	3.5	3.3	2.2	2.4	14	12	39	52	20	20
18	7.2	5.0	3.5	3.1	2.2	2.5	16	13	48	57	17	19
19	7.0	5.0	3.4	3.0	2.2	2.5	18	12	44	44	15	18
20	7.0	5.0	3.3	2.9	2.2	2.5	19	14	65	39	14	15
21	6.8	5.0	3.3	2.9	2.2	2.5	15	17	81	33	14	13
22	6.5	5.0	3.2	3.0	2.2	2.5	13	16	84	30	21	13
23	6.3	5.0	3.3	3.5	2.2	2.5	11	18	72	26	19	14
24	6.6	5.0	3.3	3.6	2.2	2.5	12	19	72	25	17	14
25	7.0	5.0	3.2	3.7	2.2	2.5	16	24	70	24	18	14
26	5.6	4.6	3.2	3.4	2.2	2.6	19	40	66	24	17	16
27	5.3	4.4	3.1	3.2	2.2	2.7	25	55	84	26	16	18
28	5.4	4.5	3.0	3.1	2.2	2.9	21	66	115	22	16	18
29	5.4	4.2	2.9	3.1	---	2.9	19	89	92	20	17	15
30	5.4	4.1	2.8	3.2	---	3.0	28	88	60	18	19	12
31	5.3	---	2.8	3.3	---	3.0	---	96	---	18	22	---
TOTAL	186.0	143.4	106.6	90.0	67.4	74.9	327.2	991	2857	1499	552	689
MEAN	6.00	4.78	3.44	2.90	2.41	2.42	10.9	32.0	95.2	48.4	17.8	23.0
MAX	7.5	5.7	3.9	3.7	3.2	3.0	28	96	172	105	30	35
MIN	5.1	4.1	2.8	2.2	2.0	2.2	3.0	10	35	18	12	12
AC-FT	369	284	211	179	134	149	649	1970	5670	2970	1090	1370

CAL YR 1980 TOTAL 10801.7 MEAN 29.5 MAX 199 MIN 1.5 AC-FT 21430
WTR YR 1981 TOTAL 7583.5 MEAN 20.8 MAX 172 MIN 2.0 AC-FT 15040

NOTE.--NO GAGE-HEIGHT RECORD FEB. 9 TO APR. 10, AUG. 31 TO SEPT. 30.

09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

LOCATION.--Lat 39°47'59", long 106°16'04", in SW¼SW¼ sec.8, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on right bank 600 ft (180 m) upstream from bridge, 0.3 mi (0.5 km) downstream from Black Lake, 4.5 mi (7.2 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) northwest of Dillon.

DRAINAGE AREA.--15.0 mi^2 (38.8 km^2).

PERIOD OF RECORD.--July 1942 to September 1949, October 1966 to current year.

REVISED RECORDS.--WSP 2124: Drainage area, WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map. July 17, 1942, to May 27, 1943, nonrecording gage, and May 28, 1943, to Sept. 30, 1949, water-stage recorder at site 600 ft (180 m) downstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 31.3 ft^3/s (0.886 m^3/s), 22,680 acre-ft/yr (28.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 384 ft^3/s (10.9 m^3/s) July 1, 1943, gage height, 4.72 ft (1.439 m), site and datum then in use, from rating curve extended above 260 ft^3/s (7.4 m^3/s); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Feb. 22, 1976, Jan. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft^3/s (4.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 9	2300	*265	7.50	3.92	1.195	July 2	0400	220	6.23	3.75	1.143
June 28	0500	217	6.15	3.74	1.140	July 10	0200	181	5.13	3.59	1.094

Minimum daily discharge, 1.5 ft^3/s (0.042 m^3/s) Jan. 30 to Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	4.8	3.5	3.0	1.5	2.0	2.7	58	96	78	28	51
2	4.9	5.0	3.4	2.8	1.5	2.0	2.8	64	111	187	27	36
3	4.4	4.7	3.1	2.8	1.5	2.0	2.8	105	131	158	26	30
4	4.5	4.6	3.0	2.8	1.5	2.0	2.8	77	147	100	27	25
5	4.3	4.6	2.9	2.9	1.5	2.0	2.9	53	145	74	27	23
6	4.2	5.1	3.1	2.8	1.5	2.0	2.9	46	179	72	25	31
7	4.0	5.4	3.2	2.8	1.5	2.0	3.0	36	201	69	24	30
8	4.0	4.8	3.2	2.7	1.5	1.9	3.2	28	204	77	21	35
9	3.9	4.6	3.3	2.8	1.5	2.0	3.3	23	219	83	20	31
10	4.0	4.0	3.4	2.8	1.5	2.0	3.7	19	203	144	20	50
11	4.1	4.1	3.4	2.8	1.5	2.0	3.9	19	198	83	28	38
12	4.2	4.3	3.2	2.7	1.5	2.1	4.3	18	165	79	30	30
13	4.9	5.1	3.2	2.6	1.5	2.0	4.9	16	125	98	52	26
14	6.3	5.9	3.2	2.5	1.5	2.2	5.8	16	100	69	43	22
15	8.3	5.3	3.1	2.4	1.6	2.2	6.6	16	80	60	36	19
16	9.1	4.8	3.0	2.4	1.6	2.2	7.5	16	74	55	49	17
17	10	4.6	3.1	2.4	1.6	2.2	8.3	18	66	55	38	14
18	11	4.4	3.2	2.4	1.7	2.2	10	16	76	63	29	13
19	11	4.2	3.2	2.4	1.7	2.4	15	17	70	54	25	12
20	10	4.1	3.0	2.3	1.7	2.2	21	23	90	50	23	11
21	10	4.6	3.0	2.2	1.7	2.2	20	27	110	43	22	12
22	10	4.0	2.9	2.2	1.8	2.2	18	23	120	40	26	13
23	8.0	4.0	3.0	2.1	1.8	2.2	14	23	95	36	25	12
24	7.0	4.0	3.0	2.0	1.8	2.3	16	27	90	34	23	11
25	6.7	4.0	3.0	2.0	1.8	2.3	24	34	85	32	22	12
26	6.7	4.0	2.8	2.0	1.8	2.3	35	59	95	34	21	14
27	6.3	3.8	2.8	2.0	1.8	2.4	42	74	123	38	19	12
28	5.6	3.8	2.8	2.0	2.0	2.5	39	90	175	31	17	11
29	5.0	3.7	2.8	1.7	---	2.5	46	118	101	28	17	9.8
30	5.1	3.6	2.8	1.5	---	2.6	52	103	74	27	20	9.2
31	5.2	---	2.8	1.5	---	2.5	---	117	---	27	33	---
TOTAL	198.7	133.9	95.4	74.3	45.4	67.6	423.4	1379	3748	2078	843	660.0
MEAN	6.41	4.46	3.08	2.40	1.62	2.18	14.1	44.5	125	67.0	27.2	22.0
MAX	11	5.9	3.5	3.0	2.0	2.6	52	118	219	187	52	51
MIN	3.9	3.6	2.8	1.5	1.5	1.9	2.7	16	66	27	17	9.2
AC-FT	394	266	189	147	90	134	840	2740	7430	4120	1670	1310

CAL YR 1980 TOTAL 12932.3 MEAN 35.3 MAX 246 MIN 2.0 AC-FT 25650
WTR YR 1981 TOTAL 9746.7 MEAN 26.7 MAX 219 MIN 1.5 AC-FT 19330

09055300 CATARACT CREEK NEAR KREMMLING, CO

LOCATION.--Lat 39°50'07", long 106°18'57", in SW¼NE¼ sec.35, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on right bank 70 ft (21 m) downstream from lower Cataract Lake, 2.8 mi (4.5 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) south of Kremmling.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,605 ft (2,623 m), from topographic map.

REMARKS.--Records good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 19.2 ft³/s (0.544 m³/s), 13,910 acre-ft/yr (17.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 321 ft³/s (9.09 m³/s) June 21, 1967, gage height, 5.43 ft (1.655 m), from rating curve extended above 180 ft³/s (5.1 m³/s); minimum daily, 0.28 ft³/s (0.008 m³/s) Oct. 7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 193 ft³/s (5.47 m³/s) at 0300 June 9, gage height, 4.62 ft (1.408 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 0.75 ft³/s (0.021 m³/s) Mar. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.3	1.5	1.4	1.0	.84	.88	45	87	33	5.7	7.6
2	2.9	2.2	1.5	1.3	1.0	.81	.87	53	93	59	5.5	9.3
3	2.9	1.9	1.4	1.3	1.0	.81	.91	104	114	73	5.0	8.0
4	2.8	1.8	1.3	1.3	.98	.82	.96	75	113	55	4.1	6.8
5	2.7	1.9	1.4	1.3	.98	.81	.92	44	114	41	4.1	6.1
6	2.6	1.9	1.6	1.3	.98	.79	.90	34	133	34	3.1	6.6
7	2.4	2.0	1.6	1.2	.98	.80	.93	28	151	31	2.7	7.5
8	2.0	2.1	1.7	1.2	.98	.81	1.2	22	157	32	2.9	8.8
9	1.8	2.0	1.7	1.2	.98	.81	1.1	18	166	33	3.2	8.9
10	1.7	1.8	1.7	1.2	.98	.81	1.2	14	156	58	3.1	8.7
11	1.6	1.8	1.7	1.2	.98	.81	1.3	13	151	45	2.6	6.9
12	1.5	1.8	1.6	1.2	.98	.76	1.5	12	130	36	2.6	7.8
13	1.5	2.1	1.6	1.2	.94	.78	1.8	11	100	37	3.6	7.6
14	1.5	2.6	1.6	1.2	.93	.77	2.2	9.5	78	32	4.5	6.5
15	1.5	2.7	1.6	1.2	.94	.76	2.8	10	47	28	4.2	6.2
16	1.6	2.5	1.5	1.2	.94	.75	4.0	12	34	24	6.1	6.3
17	2.5	2.3	1.5	1.2	.94	.79	6.0	13	32	24	6.4	5.4
18	3.5	2.2	1.5	1.1	.94	.81	9.0	13	38	26	5.7	5.3
19	4.0	2.1	1.5	1.1	.93	.81	12	13	34	23	4.7	4.9
20	3.5	1.9	1.5	1.1	.90	.80	14	16	46	20	3.8	4.1
21	3.5	1.9	1.5	1.1	.90	.78	12	22	56	17	3.7	3.4
22	3.4	1.8	1.4	1.1	.87	.78	12	20	58	14	4.0	3.4
23	3.0	1.8	1.4	1.1	.87	.78	9.7	21	51	13	4.7	3.6
24	2.9	1.8	1.4	1.1	.86	.78	10	20	48	10	4.4	3.7
25	2.9	1.8	1.4	1.1	.84	.82	17	22	45	9.8	4.3	3.6
26	2.9	1.7	1.4	1.1	.84	.81	26	36	41	9.6	4.3	4.1
27	2.7	1.8	1.4	1.1	.84	.82	30	58	47	11	3.9	4.6
28	2.6	1.7	1.4	1.0	.84	.82	28	74	55	9.5	3.6	4.6
29	2.4	1.7	1.4	1.0	---	.84	32	103	44	8.1	3.1	3.0
30	2.4	1.6	1.4	1.0	---	.88	43	96	36	7.0	3.2	3.1
31	2.3	---	1.4	1.0	---	.92	---	99	---	6.1	3.3	---
TOTAL	78.6	59.5	46.5	36.1	26.14	25.00	284.17	1130.5	2455	859.1	126.1	178.4
MEAN	2.54	1.98	1.50	1.16	.93	.81	9.47	36.5	81.8	27.7	4.07	5.95
MAX	4.0	2.7	1.7	1.4	1.0	.92	43	104	166	73	6.4	9.3
MIN	1.5	1.6	1.3	1.0	.84	.75	.87	9.5	32	6.1	2.6	3.0
AC-FT	156	118	92	72	52	50	564	2240	4870	1700	250	354

CAL YR 1980 TOTAL 7683.10 MEAN 21.0 MAX 194 MIN 1.0 AC-FT 15240
WTR YR 1981 TOTAL 5305.11 MEAN 14.5 MAX 166 MIN .75 AC-FT 10520

RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE¼ sec.13, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi (1.3 km) upstream from Straight Creek, about 1.3 mi (2.1 km) southwest of Dillon, and 3.5 mi (5.6 km) northeast of Frisco. DRAINAGE AREA, 335 mi^2 (868 km^2). PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations NGVD.

Reservoir is earth and rockfill dam. Dam completed and storage began Sept. 3, 1963; dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft (313 hm^3) between elevations 8,829.00 ft (2,691.079 m), invert of outlet valve, and 9,017.00 ft (2,748.382 m), crest of spillway. Dead storage, 3,270 acre-ft (4.03 hm^3). Figures given represent usable contents. Reservoir stores water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 261,300 acre-ft (322 hm^3) June 25, 1971, elevation, 9,019.20 ft (2,749.052 m); minimum since appreciable storage was attained in July 1964, 45,310 acre-ft (55.9 hm^3) Apr. 20, 1965, elevation, 8,904.16 ft (2,713.988 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 230,300 acre-ft (284 hm^3) Oct. 1, elevation, 9,009.34 ft (2,746.047 m); minimum, 179,600 acre-ft (221 hm^3) Sept. 7, elevation, 8,990.37 ft (2,740.265 m).

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi (1 km) upstream from Elliott Creek, and 13 mi (21 km) southeast of Kremmling. DRAINAGE AREA, 598 mi^2 (1,549 km^2), includes 15.3 mi^2 (39.6 km^2) of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

Reservoir is formed by an earth and rockfill dam. Dam completed and storage began November 1942. Capacity, 146,900 acre-ft (181 hm^3) between elevations 7,800 ft (2,377.4 m), sill of outlet gate, and 7,950 ft (2,423.2 m) top of radial spillway gates. Dead storage, 7,760 acre-ft (9.57 hm^3). Figures given represent usable contents. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin. Water released to fill decrees during late irrigation season when flow of Colorado River is deficient. Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF NO RECORD: Maximum contents, 148,900 acre-ft (184 hm^3) July 10, 1947, elevation, 7,950.95 ft (2,423.450); minimum since appreciable storage was attained, 388 acre-ft (478,000 hm^3) Jan. 12, 1963, elevation, 7,801.70 ft (2,377.958 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 121,500 acre-ft (150 hm^3) July 22, 23, elevation, 7,937.37 ft (2,419.310 m); minimum, 66,740 acre-ft (82.3 hm^3) Apr. 28, elevation, 7,902.20 ft (2,408.591 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
	09050600 DILLON RESERVOIR			09057000 GREEN MOUNTAIN RESERVOIR		
Sept. 30	9,009.53	230,900	-	7,934.02	115,300	-
Oct. 31	9,005.51	219,200	-11,700	7,925.92	101,100	-14,200
Nov. 30	9,001.77	208,800	-10,400	7,920.97	93,120	-7,980
Dec. 31	8,999.39	202,400	-6,400	7,914.47	83,320	-9,800
CAL YR 1980			-34,000			-7,980
Jan. 31	8,996.06	193,700	-8,700	7,909.05	75,700	-7,620
Feb. 28	8,993.39	187,000	-6,700	7,906.95	72,870	-2,830
Mar. 31	8,992.11	183,800	-3,200	7,904.70	69,920	-2,950
Apr. 30	8,993.26	186,700	+2,900	7,902.92	67,650	-2,270
May 31	8,992.36	184,400	-2,300	7,911.10	78,530	+10,880
June 30	8,996.92	196,000	+11,600	7,930.27	108,600	+30,070
July 31	8,995.47	192,200	-3,800	7,936.30	119,500	+10,900
Aug. 31	8,991.56	182,500	-9,700	7,926.50	102,100	-17,400
Sept. 30	8,992.08	183,700	+1,200	7,918.90	89,920	-12,180
WTR YR 1981			-47,200			-25,380

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 39°52'49", long 106°20'00", in SW¼NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi (0.5 km) upstream from Elliott Creek, 0.3 mi (0.5 km) downstream from Green Mountain Dam, and 13 mi (21 km) southeast of Kremmling.

DRAINAGE AREA.--599 mi² (1,551 km²), includes 15.3 mi² (39.6 km²) of Elliott Creek above diversion for Elliott Creek feeder canal.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,682.66 ft (2,341.675 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1951, water-stage recorder at site 3.7 mi (6.0 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres (20.2 km²) above station. Transmountain diversions above station (see elsewhere in this report). Several observations of specific conductance and water temperatures were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) June 4, 1938, gage height, 5.93 ft (1.807 m), site and datum then in use, from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily (prior to construction of Green Mountain Reservoir), 80 ft³/s (2.27 m³/s) Feb. 18-24, 1938, Feb. 18, 19, 1940; no flow at times in 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 653 ft³/s (18.5 m³/s) at 1730 Aug. 21, gage height, 4.96 ft (1.512 m); minimum daily, 34 ft³/s (0.96 m³/s) Apr. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	434	298	283	294	157	154	166	50	54	55	211	458
2	430	292	290	293	153	150	169	57	54	55	212	469
3	429	298	286	293	150	153	161	57	54	55	274	477
4	427	300	286	294	151	158	161	57	55	55	361	480
5	425	300	284	298	155	158	165	55	55	55	355	476
6	419	300	284	299	149	157	164	57	55	55	373	478
7	406	298	287	300	149	162	163	57	55	55	403	482
8	423	295	292	285	145	159	163	58	59	55	462	445
9	388	288	289	264	151	162	169	58	54	55	529	401
10	398	300	286	265	153	158	172	59	54	58	531	354
11	379	310	289	265	152	159	168	153	54	57	492	305
12	369	312	288	270	152	157	168	283	54	57	456	305
13	336	310	280	271	151	153	303	305	54	57	449	306
14	283	308	280	261	149	154	433	307	54	57	456	307
15	319	318	281	231	145	156	432	342	54	57	447	306
16	325	312	280	190	143	156	385	357	54	57	449	307
17	328	175	288	164	144	154	383	361	54	57	453	300
18	325	292	292	162	130	158	381	367	54	57	451	335
19	322	275	291	162	151	160	379	286	54	57	448	381
20	328	275	292	163	150	166	381	215	54	53	444	370
21	315	275	292	161	153	167	332	134	54	49	486	370
22	308	275	290	159	156	166	273	66	54	139	533	370
23	302	274	290	160	155	162	263	66	54	226	530	373
24	300	289	291	164	161	163	313	66	54	268	529	373
25	300	292	289	163	155	164	338	66	54	321	528	346
26	300	287	288	166	151	165	332	58	54	321	527	295
27	300	281	288	159	153	164	328	54	55	330	526	292
28	305	284	289	158	153	162	231	54	55	334	528	292
29	300	284	286	159	---	165	94	54	55	333	520	270
30	295	282	293	151	---	165	34	54	55	332	521	250
31	298	---	293	151	---	169	---	54	---	301	495	---
TOTAL	10816	8679	8917	6775	4217	4956	7604	4267	1633	4073	13979	10973
MEAN	349	289	288	219	151	160	253	138	54.4	131	451	366
MAX	434	318	293	300	161	169	433	367	59	334	533	482
MIN	283	175	280	151	130	150	34	50	54	49	211	250
AC-FT	21450	17210	17690	13440	8360	9830	15080	8460	3240	8080	27730	21760

CAL YR 1980 TOTAL 177328 MEAN 485 MAX 1130 MIN 175 AC-FT 351700
WTR YR 1981 TOTAL 86889 MEAN 238 MAX 533 MIN 34 AC-FT 172300

09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE¼SW¼ sec.23, T.1 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank at upstream end of Gore Canyon, 3.0 mi (4.8 km) southwest of Kremmling, and 3.8 mi (6.1 km) downstream from Blue River.

DRAINAGE AREA.--2,382 mi² (6,169 km²).

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1970, October 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,320 ft (2,231 m), from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres (162 km²) above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft³/s (609 m³/s) June 7, 1912, gage height, 21.8 ft (6.64 m), datum then in use, from rating curve extended above 14,000 ft³/s (400 m³/s); minimum observed, 166 ft³/s (1.70 m³/s) Dec. 19, 1907.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.4 m³/s) at 1500 May 30, gage height, 5.45 ft (1.661 m); minimum daily, 291 ft³/s (8.24 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	705	552	456	505	331	358	347	378	979	461	785	968
2	645	555	520	496	315	362	364	405	888	485	784	959
3	647	550	528	495	355	359	381	507	818	621	778	973
4	643	566	524	498	354	363	362	651	871	664	895	995
5	643	565	530	495	368	363	355	582	848	644	908	974
6	643	558	522	488	377	375	353	530	734	565	886	965
7	632	556	511	480	360	374	371	522	740	504	916	962
8	638	556	502	473	383	386	404	474	733	479	934	959
9	623	550	513	438	367	386	390	456	697	507	1030	890
10	617	551	464	434	291	384	428	420	665	536	1040	850
11	590	559	492	427	300	370	488	438	615	509	1040	835
12	590	569	497	441	365	375	534	689	575	489	992	824
13	582	594	494	475	403	371	578	732	510	503	1010	811
14	529	597	497	481	415	366	746	737	471	502	1020	810
15	550	581	483	437	388	369	772	735	475	457	995	804
16	562	540	493	375	327	366	760	770	455	400	996	760
17	571	397	503	325	325	376	740	844	430	431	1000	749
18	578	494	489	322	314	367	724	898	410	517	990	796
19	578	483	485	325	342	361	726	861	400	559	965	806
20	582	481	468	326	348	381	743	713	388	537	949	811
21	581	488	485	320	358	379	723	658	391	544	950	824
22	565	476	502	340	346	375	616	570	385	549	1030	839
23	574	477	487	355	350	367	606	625	353	696	1040	830
24	563	507	479	372	355	381	583	641	330	738	1040	824
25	556	507	488	323	364	372	654	624	321	804	1040	779
26	563	506	513	314	355	382	684	617	305	824	1040	749
27	572	488	506	383	364	394	723	647	404	840	1030	750
28	577	483	508	315	356	384	670	721	556	861	1020	753
29	546	498	506	326	---	377	531	899	632	832	1010	718
30	543	474	495	314	---	358	398	1090	530	811	1010	706
31	539	---	497	317	---	348	---	993	---	806	1020	---
TOTAL	18327	15758	15437	12415	9876	11529	16754	20427	16909	18675	30143	25273
MEAN	591	525	498	400	353	372	558	659	564	602	972	842
MAX	705	597	530	505	415	394	772	1090	979	861	1040	995
MIN	529	397	456	314	291	348	347	378	305	400	778	706
AC-FT	36350	31260	30620	24630	19590	22870	33230	40520	33540	37040	59790	50130

CAL YR 1980 TOTAL 387152 MEAN 1058 MAX 4070 MIN 397 AC-FT 767900
WTR YR 1981 TOTAL 211523 MEAN 580 MAX 1090 MIN 291 AC-FT 419600

09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO

LOCATION.--Lat 39°42'29", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from Dickson Creek, 2.0 mi (3.2 km) downstream from Piney Lake, and 8.5 mi (13.7 km) north of Minturn.

DRAINAGE AREA.--13.0 mi^2 (33.7 km^2).

PERIOD OF RECORD.--October 1947 to September 1954, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,145.25 ft (2,787.472 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to October 1963, water-stage recorder at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 23.7 ft^3/s (0.671 m^3/s), 17,170 acre-ft/yr (21.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 413 ft^3/s (11.7 m^3/s) July 5, 1975, gage height, 5.47 ft (1.667 m); maximum gage height observed, 6.44 ft (1.963 m) Apr. 13, 1977; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 278 ft^3/s (7.87 m^3/s) at 0300 June 8, gage height, 4.78 ft (1.457 m), only peak above base of 150 ft^3/s (4.2 m^3/s); maximum gage height, 5.76 ft (1.756 m) at 1700 Apr. 18, (backwater from ice); minimum daily discharge, 0.56 ft^3/s (0.016 m^3/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.3	2.6	2.1	1.3	1.1	1.4	28	80	35	8.7	14
2	2.5	1.3	2.6	2.2	1.0	1.0	1.4	29	98	67	8.8	14
3	2.3	1.3	2.6	2.2	1.1	1.1	1.4	41	114	74	8.5	12
4	2.3	1.2	2.6	2.1	1.2	1.2	1.4	52	130	53	8.4	11
5	2.3	1.1	2.7	1.9	1.1	1.2	1.4	46	142	42	7.9	11
6	2.1	1.0	2.8	1.6	1.2	1.2	1.4	41	151	35	7.3	12
7	2.1	.99	2.8	1.5	1.1	1.2	1.5	33	176	30	6.7	13
8	2.1	.95	2.6	1.6	1.1	1.2	1.3	27	191	28	6.5	13
9	1.9	.98	2.5	1.6	1.2	1.2	1.4	23	146	29	6.4	12
10	1.7	.99	2.1	1.6	1.0	1.2	1.4	17	112	43	6.7	15
11	1.7	.84	2.3	1.5	.80	1.1	1.6	15	101	32	12	15
12	1.7	.84	2.4	1.5	.56	1.1	1.6	14	91	29	12	14
13	2.0	.91	2.4	1.5	.80	1.1	2.1	12	83	35	19	13
14	2.5	.96	2.4	1.5	1.1	1.2	3.0	11	73	29	19	11
15	3.1	.94	2.6	1.6	1.0	1.3	4.3	10	45	24	16	11
16	3.7	1.0	2.6	1.7	1.0	1.3	5.1	10	38	24	19	10
17	3.4	1.2	2.6	1.8	1.0	1.3	6.0	11	41	29	17	9.3
18	3.5	1.4	2.6	1.6	.92	1.3	7.0	10	47	31	14	8.8
19	3.5	1.6	2.5	1.6	.92	1.3	9.0	9.9	45	29	12	8.2
20	3.8	1.9	2.5	1.5	.92	1.4	8.0	11	58	22	11	7.9
21	4.1	1.9	2.5	1.3	1.0	1.5	7.8	15	63	18	9.9	8.1
22	4.2	1.9	2.6	1.3	.92	1.4	7.7	13	61	16	11	8.9
23	3.8	2.5	2.6	1.4	.92	1.3	6.8	15	50	14	12	8.5
24	5.2	2.5	2.4	1.5	.92	1.3	6.8	16	48	13	11	8.1
25	4.9	2.9	2.6	1.4	1.1	1.4	7.7	21	44	13	11	8.3
26	2.2	2.6	2.5	1.3	1.1	1.4	9.9	31	40	13	11	8.6
27	2.2	2.4	2.5	1.4	1.1	1.4	15	45	46	14	9.9	8.6
28	2.1	2.8	2.5	1.4	1.0	1.4	19	64	68	13	9.3	8.2
29	1.9	2.7	2.3	1.4	---	1.4	22	86	49	11	8.8	7.7
30	1.5	2.6	2.0	1.2	---	1.4	27	80	37	9.0	9.6	7.5
31	1.3	---	2.2	1.3	---	1.4	---	87	---	8.1	10	---
TOTAL	84.1	47.50	77.5	49.1	28.38	39.3	191.4	923.9	2468	862.1	340.4	317.7
MEAN	2.71	1.58	2.50	1.58	1.01	1.27	6.38	29.8	82.3	27.8	11.0	10.6
MAX	5.2	2.9	2.8	2.2	1.3	1.5	27	87	191	74	19	15
MIN	1.3	.84	2.0	1.2	.56	1.0	1.3	9.9	37	8.1	6.4	7.5
AC-FT	167	94	154	97	56	78	380	1830	4900	1710	675	630

CAL YR 1980 TOTAL 8588.74 MEAN 23.5 MAX 210 MIN .66 AC-FT 17040
WTR YR 1981 TOTAL 5429.38 MEAN 14.9 MAX 191 MIN .56 AC-FT 10770

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 7.

09058610 DICKSON CREEK NEAR VAIL, CO

LOCATION.--Lat 39°42'14", long 106°27'25", Eagle County, Hydrologic Unit 14010001, on right bank 0.6 mi (1.0 km) upstream from Freeman Creek, 1.0 mi (1.6 km) upstream from mouth, and 6 mi (9.7 km) northwest of Vail.

DRAINAGE AREA.--3.41 mi^2 (8.83 km^2).

PERIOD OF RECORD.--October 1971 to current year. Prior to October 1972, published as "near Minturn."

GAGE.--Water-stage recorder. Altitude of gage is 9,245 ft (2,818 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage height record, which are poor. Diversion by Willy N. ditch 75 ft (23 m) above station for irrigation of hay meadows below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years, 2.46 ft^3/s (0.070 m^3/s), 1,780 acre-ft/yr (2.19 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft^3/s (1.36 m^3/s) May 6, 1979, gage height, 2.75 ft (0.838 m); maximum gage height recorded, 2.92 ft (0.890 m) Nov. 16, 1973 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft^3/s (0.37 m^3/s) at 1100 July 27, gage height, 2.20 ft (0.671 m), maximum gage height, 2.55 ft (0.777 m) at 1900 Apr. 10 (backwater from ice); minimum daily discharge, 0.14 ft^3/s (0.004 m^3/s) July 17, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.90	.71	.71	.56	.64	.55	1.4	4.4	2.5	1.6	.92
2	1.2	.90	.70	.71	.58	.68	.50	1.6	4.3	3.3	1.8	.26
3	1.2	.85	.70	.67	.62	.68	.48	3.4	4.8	2.6	1.6	.31
4	1.2	.90	.70	.65	.60	.68	.56	2.0	4.8	2.2	1.7	.35
5	1.2	.90	.74	.64	.63	.70	.62	1.7	4.4	1.5	1.6	.37
6	1.2	.90	.76	.63	.60	.70	.58	1.7	4.1	1.2	1.6	.40
7	1.2	.90	.74	.63	.62	.68	.60	1.8	4.2	.78	1.4	.57
8	1.2	.90	.70	.63	.64	.66	.71	1.6	4.2	.74	1.4	.71
9	1.4	.90	.58	.64	.60	.64	.79	1.5	4.1	1.0	1.4	.67
10	1.1	.85	.60	.62	.49	.62	.90	1.3	3.8	.75	1.7	.64
11	1.0	.90	.64	.61	.68	.60	.92	1.4	3.3	.21	1.9	.60
12	1.0	.90	.66	.60	.60	.58	.74	1.3	2.9	.16	1.8	.60
13	1.4	.90	.66	.61	.62	.56	.71	1.4	2.6	.18	2.0	.64
14	1.1	.90	.66	.66	.64	.56	.79	1.2	2.3	.18	1.8	.64
15	1.2	.81	.70	.68	.64	.56	.79	1.2	2.2	.20	1.8	.67
16	1.1	.70	.70	.68	.62	.56	.79	1.4	2.0	.19	1.9	.60
17	1.1	.72	.70	.67	.62	.56	1.0	1.5	1.8	.14	1.7	4.5
18	1.1	.75	.70	.66	.63	.56	1.1	1.5	1.9	.15	1.5	1.4
19	1.1	.77	.68	.63	.64	.56	1.1	1.6	1.8	.14	1.5	.37
20	1.1	.76	.67	.62	.63	.56	.96	1.5	1.8	.55	1.6	.43
21	1.1	.77	.67	.62	.61	.56	1.0	1.6	1.7	.67	1.5	.47
22	1.0	.79	.68	.64	.62	.56	.96	1.7	1.7	.35	1.9	.47
23	.96	.78	.68	.66	.64	.56	.96	1.8	1.5	.58	1.7	.50
24	.96	.75	.66	.66	.64	.56	1.2	1.7	1.7	.91	1.8	.57
25	.96	.74	.68	.64	.64	.56	1.5	1.8	1.6	.42	1.8	.64
26	.90	.72	.68	.65	.64	.56	1.8	2.1	1.7	.49	1.7	.74
27	.90	.68	.71	.66	.63	.56	1.5	2.5	2.0	5.9	1.8	.67
28	.85	.76	.71	.64	.63	.56	1.5	3.5	2.0	1.9	1.6	.67
29	.90	.74	.67	.62	---	.52	1.4	4.7	2.0	1.8	1.7	.64
30	.90	.72	.71	.64	---	.49	1.4	4.5	2.3	1.6	1.2	.67
31	.85	---	.71	.62	---	.50	---	4.6	---	1.6	2.6	---
TOTAL	33.68	24.46	21.26	20.00	17.31	18.33	28.41	62.5	83.9	34.89	52.6	21.69
MEAN	1.09	.82	.69	.65	.62	.59	.95	2.02	2.80	1.13	1.70	.72
MAX	1.4	.90	.76	.71	.68	.70	1.8	4.7	4.8	5.9	2.6	4.5
MIN	.85	.68	.58	.60	.49	.49	.48	1.2	1.5	.14	1.2	.26
AC-FT	67	49	42	40	34	36	56	124	166	69	104	43

CAL YR 1980 TOTAL 642.87 MEAN 1.76 MAX 13 MIN .50 AC-FT 1280
WTR YR 1981 TOTAL 419.03 MEAN 1.15 MAX 5.9 MIN .14 AC-FT 831

NOTE.--NO GAGE-HEIGHT RECORD Jan. 23 to Apr. 8.

09058700 FREEMAN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°41'55", long 106°26'41", Eagle County, Hydrologic Unit 14210001, on right bank 0.8 mi (1.3 km) upstream from mouth and 7.5 mi (12.1 km) north of Minturn.

DRAINAGE AREA.--2.94 mi^2 (7.61 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,335 ft (2,845 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 1.17 ft^3/s (0.033 m^3/s), 848 acre-ft/yr (1.05 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 ft^3/s (0.99 m^3/s) May 28, 1976, gage height, 2.60 ft (0.792 m); maximum gage height, 3.51 ft (1.070 m) May 18, 1973 (backwater from ice); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.1 ft^3/s (0.229 m^3/s) at 1700 May 3, gage height, 1.87 ft (0.570 m), no peak above base of 25 ft^3/s (0.71 m^3/s); no flow Aug. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.13	.09	.09	.08	.09	.07	2.4	1.4	.19	.06	.20
2	.15	.13	.09	.09	.08	.09	.07	2.2	1.3	.46	.05	.15
3	.15	.13	.09	.09	.08	.09	.07	6.0	1.3	.44	.05	.12
4	.15	.13	.09	.09	.07	.09	.07	3.9	1.3	.31	.05	.10
5	.12	.12	.10	.09	.08	.08	.07	2.6	1.1	.21	.04	.09
6	.10	.12	.10	.09	.08	.09	.07	2.5	.88	.14	.02	.17
7	.10	.13	.10	.09	.08	.09	.08	2.2	.77	.06	.00	.15
8	.10	.13	.10	.09	.08	.09	.08	1.8	.69	.10	.00	.13
9	.12	.12	.09	.09	.09	.08	.06	1.7	.58	.14	.00	.11
10	.14	.12	.09	.09	.08	.08	.06	1.5	.57	.29	.00	.10
11	.10	.12	.09	.09	.08	.08	.08	1.7	.50	.20	.09	.12
12	.12	.12	.09	.09	.06	.08	.09	1.5	.40	.16	.14	.13
13	.23	.13	.09	.09	.07	.08	.10	1.5	.33	.20	.18	.13
14	.23	.14	.09	.09	.08	.08	.10	1.5	.33	.16	.16	.14
15	.23	.12	.10	.08	.08	.08	.13	1.5	.34	.13	.14	.14
16	.25	.10	.10	.09	.09	.08	.13	1.5	.32	.28	.10	.14
17	.26	.10	.10	.10	.09	.08	.15	1.7	.29	.43	.07	.12
18	.25	.11	.10	.09	.09	.08	.16	1.9	.28	.56	.05	.10
19	.23	.11	.09	.08	.09	.08	.18	1.8	.23	.40	.03	.08
20	.22	.10	.09	.08	.09	.07	.18	1.5	.20	.24	.02	.08
21	.22	.09	.09	.08	.09	.07	.39	1.7	.19	.17	.02	.11
22	.20	.09	.10	.08	.08	.08	.83	1.8	.17	.14	.05	.14
23	.20	.10	.10	.08	.08	.08	.86	2.0	.13	.14	.06	.13
24	.19	.09	.10	.08	.08	.08	1.4	1.7	.14	.13	.06	.14
25	.18	.09	.10	.08	.08	.07	1.8	1.6	.12	.13	.09	.15
26	.16	.09	.09	.08	.08	.07	2.4	1.9	.11	.13	.08	.17
27	.15	.09	.09	.08	.08	.07	2.6	2.0	.23	.13	.08	.15
28	.15	.09	.09	.08	.09	.08	3.0	1.9	.42	.12	.05	.13
29	.15	.10	.09	.08	---	.08	3.4	2.4	.29	.10	.05	.15
30	.13	.09	.09	.08	---	.08	3.1	1.9	.20	.07	.06	.13
31	.13	---	.09	.08	---	.07	---	1.6	---	.06	.17	---
TOTAL	5.26	3.33	2.91	2.66	2.28	2.49	21.78	63.4	15.11	6.42	2.02	3.90
MEAN	.17	.11	.094	.086	.081	.080	.73	2.05	.50	.21	.065	.13
MAX	.26	.14	.10	.10	.09	.09	3.4	6.0	1.4	.56	.18	.20
MIN	.10	.09	.09	.08	.06	.07	.06	1.5	.11	.06	.00	.08
AC-FT	10	6.6	5.8	5.3	4.5	4.9	43	126	30	13	4.0	7.7

CAL YR 1980 TOTAL 417.00 MEAN 1.14 MAX 14 MIN .06 AC-FT 827
WTR YR 1981 TOTAL 131.56 MEAN .36 MAX 6.0 MIN .00 AC-FT 261

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 8.

09058800 EAST MEADOW CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°43'54", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from mouth and 10 mi (16 km) north of Minturn.

DRAINAGE AREA.--3.61 mi^2 (9.35 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,455 ft (2,882 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 4.21 ft^3/s (0.119 m^3/s), 3,050 acre-ft/yr (3.76 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74 ft^3/s (2.10 m^3/s) July 4, 1975, gage height, 2.13 ft (0.649 m); maximum gage height, 2.22 ft (0.677 m) May 12, 1970 (backwater from ice); minimum daily discharge, 0.32 ft^3/s (0.009 m^3/s) Jan. 7, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32 ft^3/s (0.91 m^3/s), time unknown, June 8, gage height, 1.52 ft (0.463 m), from recorded range in stage, no peak above base of 40 ft^3/s (1.1 m^3/s); minimum daily, 0.52 ft^3/s (0.015 m^3/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.92	.77	.68	.63	.68	.74	7.2	15	4.4	1.4	1.8
2	.77	.86	.76	.70	.64	.67	.74	7.6	16	6.7	1.4	1.3
3	.77	.86	.74	.72	.56	.68	.73	10	17	6.0	1.3	1.3
4	.74	.86	.74	.74	.58	.70	.73	11	19	4.7	1.4	1.3
5	.74	.86	.74	.73	.62	.72	.74	7.6	22	4.1	1.3	1.4
6	.71	.86	.76	.71	.62	.72	.74	6.7	24	3.6	1.2	1.5
7	.71	.86	.78	.70	.63	.70	.74	6.4	26	3.4	1.2	1.5
8	.71	.85	.79	.66	.62	.68	.74	5.7	27	3.4	1.2	1.4
9	.68	.85	.76	.62	.62	.66	.74	5.0	22	5.8	1.2	1.3
10	.68	.80	.74	.64	.64	.64	.80	5.4	20	5.0	1.6	1.2
11	.68	.80	.70	.64	.62	.65	.88	4.5	18	3.4	1.6	1.2
12	.71	.85	.66	.62	.52	.68	.96	3.9	13	3.4	1.8	1.2
13	.80	.85	.68	.60	.69	.70	1.0	4.1	10	3.6	1.8	1.2
14	.80	.85	.69	.60	.67	.74	1.1	4.1	8.0	3.0	1.5	1.2
15	.80	.86	.70	.61	.67	.74	1.2	4.1	6.5	2.6	1.4	1.2
16	1.0	.80	.70	.65	.67	.74	1.2	3.9	6.8	2.8	1.5	1.1
17	1.1	.70	.75	.68	.67	.74	1.5	3.4	7.5	3.6	1.4	1.1
18	1.1	.70	.76	.70	.66	.75	2.8	3.4	7.0	3.0	1.3	1.0
19	1.1	.73	.75	.67	.66	.75	5.7	4.1	7.8	2.6	1.2	1.0
20	1.1	.77	.74	.66	.66	.78	3.6	5.4	8.4	2.3	1.2	1.1
21	1.1	.80	.73	.64	.66	.78	3.2	4.6	7.6	2.1	1.2	1.2
22	1.0	.80	.72	.62	.66	.72	3.0	4.5	6.2	2.0	1.4	1.1
23	.98	.80	.74	.63	.64	.72	2.9	4.7	5.5	1.9	1.3	1.1
24	.98	.80	.74	.65	.66	.72	3.8	5.4	5.0	1.8	1.3	1.1
25	.98	.80	.73	.66	.66	.76	4.6	6.3	4.4	1.8	1.2	1.2
26	.98	.75	.73	.66	.67	.75	5.1	8.6	4.5	1.8	1.1	1.2
27	.92	.75	.74	.64	.66	.75	5.8	14	5.1	2.1	1.1	1.0
28	.92	.75	.74	.66	.66	.75	6.4	15	5.2	1.7	1.1	1.0
29	.92	.75	.73	.66	---	.75	7.3	18	4.1	1.6	1.2	1.0
30	.92	.80	.72	.66	---	.74	7.9	17	3.8	1.5	1.3	1.0
31	.92	---	.70	.64	---	.74	---	19	---	1.4	1.5	---
TOTAL	27.09	24.29	22.73	20.45	17.92	22.30	77.38	230.6	352.4	97.1	41.6	36.2
MEAN	.87	.81	.73	.66	.64	.72	2.58	7.44	11.7	3.13	1.34	1.21
MAX	1.1	.92	.79	.74	.69	.78	7.9	19	27	6.7	1.8	1.8
MIN	.68	.70	.66	.60	.52	.64	.73	3.4	3.8	1.4	1.1	1.0
AC-FT	54	48	45	41	36	44	153	457	699	193	83	72

CAL YR 1980 TOTAL 1213.30 MEAN 3.32 MAX 33 MIN .50 AC-FT 2410
WTR YR 1981 TOTAL 970.06 MEAN 2.66 MAX 27 MIN .52 AC-FT 1920

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 7.

09059500 PINEY RIVER NEAR STATE BRIDGE, CO

LOCATION.--Lat 39°48'00", long 106°35'00", in sec.16, T.3 S., R.82 W., Eagle County, Hydrologic Unit 14010001, on left bank at downstream side of private bridge at Perry Olsen Ranch 1.2 mi (1.9 km) downstream from Rock Creek, and 6.0 mi (9.7 km) southeast of State Bridge.

DRAINAGE AREA.--86.2 mi² (223.3 km²).

PERIOD OF RECORD.--May 1944 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,272.35 ft (2,216.612 m), National Geodetic Vertical Datum of 1929. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft (0.725 m) higher.

REMARKS.--Records good except for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 400 acres (1.62 km²) of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 73.3 ft³/s (2.076 m³/s) 53,110 acre-ft/yr (65.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s (31.4 m³/s) June 8, 1952, gage height, 5.61 ft (1.710 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 1, 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 524 ft³/s (14.8 m³/s) at 0430 June 9, gage height, 4.24 ft (1.292 m), from peak stage indicator, only peak above base of 520 ft³/s (15 m³/s); minimum daily, 8.3 ft³/s (0.235 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	16	14	13	9.6	11	14	153	295	68	19	22
2	10	16	14	13	10	12	14	183	314	101	19	19
3	10	15	14	13	11	12	14	313	336	111	18	17
4	10	14	14	13	11	12	14	252	358	86	18	16
5	10	14	15	13	11	12	14	180	357	71	17	15
6	10	14	15	13	10	13	15	142	367	63	16	17
7	10	14	15	12	11	12	15	117	402	55	15	17
8	10	14	14	12	12	12	16	99	420	53	14	19
9	10	14	12	12	13	11	19	87	418	50	13	17
10	9.6	13	12	11	11	11	23	80	366	69	13	17
11	8.3	13	13	11	9.0	11	25	81	339	55	19	19
12	8.6	14	13	11	12	12	26	77	291	51	22	17
13	12	16	13	11	11	12	28	73	229	56	25	16
14	12	15	13	12	12	13	33	72	182	50	27	15
15	15	14	14	12	12	13	37	74	131	44	24	14
16	16	14	14	13	11	13	40	73	107	43	25	13
17	16	14	14	12	11	13	50	77	104	49	24	11
18	15	15	14	12	11	13	59	77	102	50	21	15
19	15	15	14	11	11	14	64	82	96	46	18	9.9
20	16	15	13	11	11	14	66	87	107	40	16	9.7
21	17	15	14	11	11	13	60	98	112	35	15	11
22	20	16	14	12	11	13	59	92	108	31	17	10
23	20	16	13	12	11	14	53	98	94	28	18	10
24	19	15	13	12	12	14	67	104	88	25	17	9.7
25	23	15	14	11	12	14	84	111	82	24	17	10
26	23	14	13	12	11	14	107	143	76	24	16	11
27	19	15	13	12	11	14	116	196	84	29	15	10
28	18	15	13	12	11	14	111	258	107	27	14	10
29	16	15	12	11	---	14	130	317	85	23	13	9.7
30	18	14	13	11	---	14	146	305	71	22	13	9.7
31	18	---	13	11	---	14	---	309	---	18	17	---
TOTAL	444.5	439	419	368	310.6	398	1519	4410	6228	1497	555	416.7
MEAN	14.3	14.6	13.5	11.9	11.1	12.8	50.6	142	208	48.3	17.9	13.9
MAX	23	16	15	13	13	14	146	317	420	111	27	22
MIN	8.3	13	12	11	9.0	11	14	72	71	18	13	9.7
AC-FT	882	871	831	730	616	789	3010	8750	12350	2970	1100	827

CAL YR 1980 TOTAL 25956.0 MEAN 70.9 MAX 591 MIN 5.0 AC-FT 51480
WTR YR 1981 TOTAL 17004.8 MEAN 46.6 MAX 420 MIN 8.3 AC-FT 33730

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 16.

09063000 EAGLE RIVER AT RED CLIFF, CO

LOCATION.--Lat 39°30'34", long 106°22'00", in NW¼SW¼ sec.20, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank at Red Cliff, 0.3 mi (0.5 km) upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi² (181.3 km²).

PERIOD OF RECORD.--October 1910 to September 1925, May 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WRD Colo. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 8,648.48 ft (2,636.057 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Jan. 8, 1911, to Sept. 30, 1925, nonrecording gage at bridge 0.2 mi (0.3 km) downstream at different datum. May 25, 1944, to Oct. 12, 1952, water-stage recorder at site 200 ft (61 m) upstream at datum 3.54 ft (1.079 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station by Columbine, Ewing, and Wurtz ditches (see elsewhere in this report). Transbasin diversion above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm³) to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres (1.62 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--52 years (water years 1911-25, 1946-81), 47.9 ft³/s (1.357 m³/s), 34,700 acre-ft/yr (42.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,010 ft³/s (28.6 m³/s) June 5, 1912, gage height, 4.0 ft (1.22 m), site and datum then in use, from rating curve extended above 500 ft³/s (14 m³/s); maximum gage height recorded, 4.23 ft (1.289 m) Nov. 28, 1972 (backwater from ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Oct. 15, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99 ft³/s (2.80 m³/s) at 2100 June 6, gage height 2.58 ft (0.786 m), maximum observed gage height, 2.74 ft (0.835 m) Nov. 18 (backwater from ice), no peak above base of 280 ft³/s (7.9 m³/s); minimum daily discharge, 4.7 ft³/s (0.13 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.6	8.4	7.4	6.6	5.9	5.5	30	63	24	14	11
2	13	9.5	8.0	7.4	6.5	6.0	5.8	29	87	26	13	10
3	13	9.7	7.9	7.5	6.4	6.0	6.4	41	80	25	12	10
4	13	9.3	8.2	7.4	6.8	6.0	6.2	45	81	24	12	10
5	14	10	8.1	7.4	7.2	6.0	5.8	43	82	22	12	10
6	14	10	8.2	7.2	7.0	5.9	5.8	40	85	20	11	11
7	13	10	8.1	7.0	6.8	5.8	6.2	38	85	19	10	12
8	13	10	8.1	6.8	6.8	5.8	7.4	36	83	20	10	12
9	14	10	7.8	7.0	6.6	5.7	7.0	35	81	20	10	11
10	14	9.9	7.6	7.2	6.2	5.6	8.8	34	75	21	13	14
11	14	9.7	7.2	7.0	4.7	5.6	12	34	67	19	15	26
12	13	9.6	7.2	6.4	5.4	5.6	14	32	63	20	15	18
13	14	11	8.2	6.4	5.6	5.6	14	31	57	23	17	15
14	13	9.9	8.0	6.8	6.2	5.6	15	30	53	20	15	14
15	12	11	7.8	7.4	6.2	5.6	19	30	51	17	18	13
16	11	10	8.1	7.8	6.0	5.6	23	29	44	20	19	12
17	11	9.8	8.0	7.6	6.0	5.6	26	30	40	22	16	12
18	11	9.6	7.8	7.4	6.0	5.6	33	31	38	22	13	12
19	11	9.6	8.0	7.4	6.2	5.6	29	30	35	19	12	11
20	11	9.5	8.0	7.2	6.4	5.6	25	30	33	17	11	11
21	11	9.0	8.0	7.0	6.4	5.6	23	30	33	15	11	12
22	11	8.8	7.8	7.0	6.3	5.6	23	29	32	14	13	12
23	11	8.5	7.3	7.0	6.2	5.6	23	29	31	14	12	11
24	10	8.6	7.8	7.2	6.1	5.6	25	30	29	14	12	11
25	9.6	9.2	7.6	7.0	6.1	5.6	24	30	27	14	11	11
26	9.7	8.6	7.1	6.8	6.2	5.6	22	30	27	16	11	12
27	10	8.0	7.1	6.8	6.1	5.6	23	38	27	18	12	12
28	11	8.2	7.0	6.8	6.0	5.6	23	51	28	16	11	12
29	11	8.3	7.0	6.8	---	5.6	23	69	26	14	10	11
30	11	8.7	7.0	6.6	---	5.5	28	62	24	14	10	12
31	9.7	---	7.0	6.6	---	5.5	---	57	---	13	11	---
TOTAL	371.0	283.6	239.4	219.3	175.0	176.1	511.9	1133	1567	582	392	371
MEAN	12.0	9.45	7.72	7.07	6.25	5.68	17.1	36.5	52.2	18.8	12.6	12.4
MAX	14	11	8.4	7.8	7.2	6.0	33	69	87	26	19	26
MIN	9.6	8.0	7.0	6.4	4.7	5.5	5.5	29	24	13	10	10
AC-FT	736	563	475	435	347	349	1020	2250	3110	1150	778	736

CAL YR 1980 TOTAL 12281.2 MEAN 33.6 MAX 327 MIN 7.0 AC-FT 24360
WTR YR 1981 TOTAL 6021.3 MEAN 16.5 MAX 87 MIN 4.7 AC-FT 11940

NOTE.--NO GAGE-HEIGHT RECORD JAN 21 TO APR. 10.

09063200 WEARYMAN CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'14", long 106°19'06", in SW¼SE¼ sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.4 mi (0.6 km) upstream from mouth and 2.5 mi (4.0 km) east of Red Cliff.

DRAINAGE AREA.--8.78 mi^2 (22.74 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,158 ft (2,791.4 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 7.94 ft^3/s (0.225 m^3/s), 5,750 acre-ft/yr (7.09 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft^3/s (4.0 m^3/s) June 18, 1965, gage height, 3.23 ft (0.985 m); minimum daily, 0.30 ft^3/s (0.008 m^3/s) Feb. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft^3/s (1.25 m^3/s) at 1600 June 9, gage height, 2.98 ft (0.908 m), no peak above base of 70 ft^3/s (2.0 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.2	1.8	1.4	1.3	1.3	1.3	3.1	15	15	4.4	3.1
2	2.7	2.3	1.8	1.6	1.3	1.4	1.3	3.3	15	15	4.2	2.9
3	2.7	2.3	1.7	1.5	1.3	1.3	1.3	4.2	17	14	4.1	3.0
4	2.6	2.3	1.7	1.6	1.1	1.3	1.3	3.9	19	14	4.0	3.0
5	2.4	2.2	1.7	1.8	1.2	1.4	1.3	3.7	21	14	3.8	3.0
6	2.4	2.2	1.7	1.6	1.3	1.4	1.3	3.7	25	13	3.7	3.0
7	2.4	2.2	1.8	1.5	1.3	1.4	1.3	3.7	31	13	3.6	3.2
8	2.4	2.1	1.8	1.5	1.3	1.5	1.3	3.7	37	13	3.5	3.1
9	2.4	2.2	1.8	1.3	1.4	1.5	1.4	3.8	42	13	3.4	3.6
10	2.4	2.2	1.7	1.4	1.3	1.4	1.4	3.8	43	12	3.9	4.0
11	2.4	2.2	1.7	1.4	1.0	1.4	1.5	3.7	42	11	3.7	5.9
12	2.4	2.1	1.4	1.4	1.2	1.3	1.5	3.5	40	11	4.0	4.0
13	2.4	2.0	1.5	1.3	1.4	1.3	1.5	3.5	37	11	4.3	3.7
14	2.4	2.1	1.6	1.3	1.5	1.3	1.4	3.5	33	10	3.6	3.5
15	2.6	2.5	1.6	1.3	1.3	1.3	1.5	3.6	31	9.2	3.9	3.6
16	2.4	2.4	1.6	1.4	1.4	1.3	1.4	3.6	28	9.6	3.8	3.5
17	2.4	2.2	1.7	1.4	1.4	1.3	1.5	3.7	26	9.8	3.7	3.5
18	2.4	1.9	1.7	1.5	1.4	1.3	1.7	3.6	24	9.0	3.4	3.5
19	3.8	1.7	1.7	1.5	1.3	1.4	1.9	3.8	22	8.4	3.2	3.5
20	3.3	1.8	1.7	1.4	1.3	1.4	1.8	4.1	20	7.4	3.2	3.5
21	3.0	1.9	1.6	1.4	1.3	1.4	1.7	4.6	19	6.9	3.3	3.6
22	2.8	1.9	1.6	1.3	1.4	1.4	1.5	4.6	18	6.6	3.7	3.5
23	2.8	1.8	1.6	1.3	1.3	1.3	1.6	4.9	17	6.5	3.3	3.5
24	2.7	1.9	1.7	1.3	1.3	1.2	2.0	5.3	16	5.9	3.1	3.5
25	2.6	2.0	1.7	1.4	1.3	1.2	2.3	6.0	17	5.8	3.1	3.5
26	2.4	1.9	1.6	1.4	1.4	1.2	2.5	6.8	18	6.3	3.3	3.4
27	2.4	1.8	1.7	1.4	1.4	1.3	2.5	8.5	17	5.8	3.2	3.4
28	2.4	1.8	1.6	1.4	1.4	1.3	2.6	11	16	5.1	3.0	3.3
29	2.5	1.6	1.6	1.4	---	1.3	2.9	13	16	4.8	2.9	3.4
30	2.5	1.9	1.6	1.4	---	1.3	3.0	13	15	4.5	2.9	3.4
31	2.3	---	1.6	1.4	---	1.3	---	14	---	4.5	3.1	---
TOTAL	80.0	61.6	51.6	44.2	36.8	41.4	51.5	165.2	737	295.1	110.3	104.6
MEAN	2.58	2.05	1.66	1.43	1.31	1.34	1.72	5.33	24.6	9.52	3.56	3.49
MAX	3.8	2.5	1.8	1.8	1.5	1.5	3.0	14	43	15	4.4	5.9
MIN	2.3	1.6	1.4	1.3	1.0	1.2	1.3	3.1	15	4.5	2.9	2.9
AC-FT	159	122	102	88	73	82	102	328	1460	585	219	207

CAL YR 1980 TOTAL 2546.08 MEAN 6.96 MAX 54 MIN .98 AC-FT 5050
WTR YR 1981 TOTAL 1779.30 MEAN 4.87 MAX 43 MIN 1.0 AC-FT 3530

NOTE.--NO GAGE-HEIGHT RECORD OCT. 22 TO APR. 9.

09063400 TURKEY CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'22", long 106°20'08", in NW¼SW¼ sec.16, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 400 ft (120 m) downstream from Lime Creek, 1.9 mi (3.1 km) northeast of Red Cliff, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--23.9 mi^2 (61.9 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,885 ft (2,708 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 20.8 ft^3/s (0.589 m^3/s), 15,070 acre-ft.yr (18.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft^3/s (14.6 m^3/s) June 17, 1965, gage height, 3.03 ft (0.924 m), from rating curve extended above 230 ft^3/s (6.5 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 85 ft^3/s (2.41 m^3/s) at 1600 June 8, gage height, 2.03 ft (0.619 m), no peak above base of 160 ft^3/s (4.5 m^3/s); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.8	3.5	3.0	2.6	2.0	2.3	15	60	25	9.1	6.8
2	5.4	4.8	3.4	3.3	2.0	2.0	2.3	17	63	25	8.8	6.1
3	5.3	4.8	3.4	3.3	2.1	2.1	2.3	23	67	23	8.6	6.2
4	5.3	4.9	3.4	3.1	2.4	2.2	2.2	20	71	21	8.3	6.0
5	5.3	5.0	3.5	2.9	2.2	2.1	2.2	19	71	20	8.1	6.1
6	5.2	5.0	3.7	2.9	2.4	2.2	2.4	19	75	19	7.9	6.1
7	5.2	5.0	3.7	2.7	2.1	2.2	2.4	18	76	18	7.7	6.7
8	4.9	4.9	3.5	2.8	1.9	2.1	2.4	17	77	18	7.7	6.4
9	4.9	4.8	3.4	2.8	1.9	2.1	2.6	16	76	18	7.6	6.7
10	4.9	4.5	2.8	2.9	1.9	2.0	3.1	16	74	17	9.0	8.0
11	4.9	4.8	3.1	2.7	1.5	1.9	3.1	15	73	17	8.3	11
12	5.0	4.8	3.2	2.7	2.2	1.8	3.2	14	73	17	8.9	7.7
13	5.3	4.9	3.2	2.6	2.0	1.8	3.2	14	77	17	9.2	7.2
14	5.2	4.9	3.2	2.7	2.1	1.9	3.5	14	75	16	8.2	6.7
15	5.7	4.5	3.4	2.9	2.1	2.1	4.0	14	63	14	8.7	6.4
16	5.2	3.6	3.4	3.1	2.1	2.1	3.9	15	56	16	8.5	6.3
17	5.4	3.4	3.4	3.1	2.0	2.1	4.6	15	53	16	8.0	6.1
18	5.5	3.6	3.4	2.9	2.0	2.1	5.2	15	48	15	7.3	6.0
19	5.3	3.8	3.3	2.9	2.0	2.1	5.9	15	45	14	6.9	6.0
20	5.4	3.8	3.2	2.7	2.1	2.2	5.5	16	45	13	6.8	5.9
21	5.3	3.7	3.2	2.5	1.9	2.1	5.1	17	43	12	7.1	6.4
22	5.3	3.8	3.3	2.5	1.9	2.1	5.0	17	40	11	8.3	6.0
23	5.3	3.9	3.3	2.6	1.9	2.1	5.4	19	39	11	7.2	6.0
24	13	3.8	3.2	2.7	2.0	2.3	6.6	19	35	11	6.9	6.1
25	10	3.7	3.3	2.6	2.0	2.2	8.0	21	34	10	6.7	6.0
26	5.4	3.6	3.3	2.6	2.0	2.2	9.3	23	32	11	7.0	6.1
27	5.2	3.3	3.3	2.7	2.0	2.2	10	28	31	11	6.9	5.8
28	7.2	3.7	3.3	2.7	2.0	2.2	13	40	31	10	6.3	5.7
29	7.1	3.6	3.2	2.7	---	2.2	14	49	28	9.6	6.3	5.8
30	6.2	3.5	2.9	2.5	---	2.2	15	53	26	9.3	6.3	5.7
31	5.0	---	3.3	2.6	---	2.2	---	56	---	9.4	6.7	---
TOTAL	179.7	127.2	102.7	86.7	57.3	65.1	157.7	669	1657	474.3	239.3	194.0
MEAN	5.80	4.24	3.31	2.80	2.05	2.10	5.26	21.6	55.2	15.3	7.72	6.47
MAX	13	5.0	3.7	3.3	2.6	2.3	15	56	77	25	9.2	11
MIN	4.9	3.3	2.8	2.5	1.5	1.8	2.2	14	26	9.3	6.3	5.7
AC-FT	356	252	204	172	114	129	313	1330	3290	941	475	385

CAL YR 1980 TOTAL 5960.6 MEAN 16.3 MAX 150 MIN 2.4 AC-FT 11820
WTR YR 1981 TOTAL 4010.0 MEAN 11.0 MAX 77 MIN 1.5 AC-FT 7950

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 9.

09063900 MISSOURI CREEK NEAR GOLD PARK, CO

LOCATION.--Lat 39°23'25", long 106°28'10", Eagle County, Hydrologic Unit 14010003, on left bank 50 ft (15 m) downstream from road culvert, 0.6 mi (1.0 km) upstream from Fancy Creek, 2.2 mi (3.5 km) southwest of Gold Park, and 10 mi (16 km) southwest of Red Cliff.

DRAINAGE AREA.--6.42 mi² (16.63 km²).

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for periods of no gage-height record, which are poor. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 6.50 ft³/s (0.184 m³/s) 4,710 acre-ft/yr (5.81 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft³/s (8.50 m³/s) July 4, 1975, gage height, 3.19 ft (0.972 m), from rating curve extended above 35 ft³/s (1.0 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Feb. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120 ft³/s (3.40 m³/s) at 1800 June 9, gage height, 3.03 ft (0.924 m); minimum daily, 0.46 ft³/s (0.013 m³/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	1.0	.90	.65	.50	.48	6.8	13	8.4	6.6	5.0
2	1.1	1.0	1.0	.86	.65	.50	.50	7.6	16	9.8	6.0	4.0
3	1.1	1.0	1.0	.85	.64	.49	.52	11	15	9.6	6.2	3.9
4	1.0	1.0	1.0	.85	.64	.49	.58	7.6	25	8.8	5.8	3.6
5	1.0	1.0	1.0	.88	.64	.49	.56	5.1	32	7.9	5.3	3.5
6	.95	1.0	1.0	.92	.63	.48	.57	3.7	46	7.8	4.7	4.1
7	.95	1.1	1.0	.88	.62	.48	.59	3.0	53	8.3	4.3	4.8
8	.90	1.1	1.0	.86	.61	.48	.64	2.4	53	13	4.2	5.3
9	.90	1.0	.98	.86	.60	.48	.72	2.2	61	18	4.2	5.5
10	.85	1.1	1.0	.86	.58	.48	.86	2.0	47	19	4.5	12
11	.84	1.0	1.0	.81	.56	.48	1.0	2.8	37	17	5.1	11
12	.81	1.0	1.0	.80	.46	.48	1.4	6.6	17	21	5.9	9.2
13	1.2	1.1	1.0	.80	.50	.48	1.6	7.2	8.7	26	7.6	7.7
14	1.1	1.1	1.0	.80	.52	.48	1.7	7.2	4.9	22	6.2	6.6
15	1.6	1.0	.98	.79	.56	.47	1.8	7.8	3.5	17	11	5.7
16	1.5	1.0	.93	.74	.58	.47	1.9	7.6	3.6	18	11	5.1
17	1.5	1.1	.90	.74	.58	.47	2.1	7.2	4.1	25	8.0	4.3
18	1.4	1.1	.90	.74	.58	.47	2.8	7.4	3.3	24	6.4	4.0
19	1.3	1.1	.90	.74	.58	.47	3.4	8.0	11	19	5.2	3.6
20	1.3	1.1	.90	.74	.57	.47	3.4	10	23	14	4.7	3.4
21	1.2	1.1	.90	.74	.54	.47	3.5	7.2	27	11	4.3	3.7
22	1.2	1.0	.90	.68	.54	.47	3.9	2.4	14	9.0	4.6	3.3
23	1.1	1.1	.90	.67	.54	.47	4.6	2.5	3.4	8.0	4.1	3.0
24	1.1	1.1	.90	.67	.54	.47	4.9	3.2	8.9	7.4	3.8	2.9
25	1.1	1.0	.90	.67	.54	.47	4.9	4.9	16	8.1	3.5	2.8
26	1.1	1.0	.90	.67	.53	.47	5.0	7.8	23	15	3.4	3.1
27	1.1	1.0	.90	.68	.53	.47	5.2	9.8	35	20	3.5	2.5
28	1.1	1.0	.90	.66	.53	.47	5.3	13	43	12	3.1	2.3
29	1.0	1.0	.90	.66	---	.47	5.7	14	21	9.0	2.9	2.1
30	1.1	1.0	.86	.65	---	.49	6.6	14	7.8	8.0	4.4	2.3
31	1.1	---	.92	.65	---	.50	---	14	---	7.0	5.5	---
TOTAL	34.60	31.2	29.37	23.82	16.04	14.83	76.72	216.0	676.2	428.1	166.0	140.3
MEAN	1.12	1.04	.95	.77	.57	.48	2.56	6.97	22.5	13.8	5.35	4.68
MAX	1.6	1.1	1.0	.92	.65	.50	6.6	14	61	26	11	12
MIN	.81	1.0	.86	.65	.46	.47	.48	2.0	3.3	7.0	2.9	2.1
AC-FT	69	62	58	47	32	29	152	428	1340	849	329	278

CAL YR 1980 TOTAL 2694.73 MEAN 7.36 MAX 75 MIN .38 AC-FT 5340
WTR YR 1981 TOTAL 1853.18 MEAN 5.08 MAX 61 MIN .46 AC-FT 3680

NOTE.--NO GAGE-HEIGHT RECORD Nov. 22 to Apr. 13, June 29 to Aug. 12.

09064000 HOMESTAKE CREEK AT GOLD PARK, CO

LOCATION.--Lat 39°24'20", long 106°25'58", Eagle County, Hydrologic Unit 14010003, on left bank at Gold Park, 400 ft (120 m) downstream from ford, 0.5 mi (0.8 km) downstream from French Creek, and 8 mi (13 km) southwest of Red Cliff.

DRAINAGE AREA.--36.1 mi^2 (93.5 km^2).

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year.

REVISED RECORDS.--WRD Colo. 1973: Drainage area at former site.

GAGE.--Water-stage recorder. Altitude of gage is 9,200 ft (2,804 m), from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft (460 m) upstream at datum 9,245 ft (2,817.9 m), National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft (54.7 hm^3) since June 7, 1966. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1948-54), 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.6 hm^3/yr), prior to diversion through Homestake tunnel; 9 years (water years 1973-81), 21.9 ft^3/s (0.620 m^3/s), 15,870 acre-ft/yr (19.6 hm^3/yr), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) June 13, 1953, gage height, 6.84 ft (2.085 m), site and datum then in use, from rating curve extended above 700 ft^3/s (20 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 429 ft^3/s (12.1 m/s) at 1930 June 9, gage height, 5.38 ft (1.640 m), from rating curve extended above 110 ft^3/s (3.1 m^3/s); minimum daily, 3.1 ft^3/s (0.088 m^3/s) Mar. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.9	6.3	5.9	4.4	3.4	3.2	30	36	19	16	16
2	7.7	7.8	6.3	5.9	4.4	3.4	3.2	33	41	23	14	13
3	7.7	7.6	6.3	5.7	4.4	3.4	3.2	80	42	23	15	13
4	7.7	7.5	6.3	5.6	4.4	3.4	3.2	56	55	20	14	12
5	7.7	7.4	6.3	5.6	4.4	3.4	3.2	35	71	18	12	11
6	7.7	7.6	6.3	5.6	4.3	3.3	3.3	27	114	18	11	14
7	7.7	8.2	6.3	5.6	4.3	3.3	3.3	22	137	19	10	16
8	7.7	9.5	6.3	5.6	4.3	3.3	3.8	19	126	32	9.9	18
9	7.7	10	6.2	5.6	4.2	3.3	5.1	18	127	43	9.9	18
10	7.7	12	6.0	5.6	4.2	3.3	6.1	17	91	46	13	39
11	7.7	14	6.2	5.6	4.2	3.3	7.4	20	66	38	16	59
12	7.7	9.2	6.3	5.4	4.2	3.3	7.7	33	39	49	15	41
13	7.9	8.0	6.3	5.3	4.1	3.3	7.4	34	24	61	21	30
14	7.8	7.4	6.3	5.4	4.0	3.3	8.6	36	18	50	17	26
15	9.4	7.0	6.3	5.4	3.8	3.3	9.5	40	17	39	30	22
16	8.6	6.9	6.2	5.4	3.7	3.3	9.2	39	16	41	30	19
17	9.3	6.9	6.1	5.3	3.7	3.3	9.8	38	15	58	21	17
18	10	7.0	6.0	5.0	3.7	3.3	9.4	40	14	56	17	16
19	12	7.0	6.0	5.0	3.7	3.3	8.6	46	20	41	15	14
20	11	7.1	6.0	5.0	3.7	3.3	8.1	54	33	31	14	14
21	11	7.0	6.0	5.0	3.7	3.3	9.0	42	37	25	13	15
22	10	6.8	6.0	5.0	3.7	3.3	10	17	28	21	13	14
23	9.6	6.8	6.0	4.8	3.6	3.3	14	18	14	19	13	13
24	11	6.7	5.9	4.5	3.5	3.3	18	19	18	17	12	13
25	11	6.7	5.9	4.6	3.4	3.3	18	23	26	19	12	13
26	9.3	6.6	6.0	4.6	3.4	3.2	19	28	47	38	11	14
27	8.1	6.5	6.0	4.6	3.4	3.2	20	31	95	47	11	12
28	7.7	6.4	6.0	4.6	3.4	3.2	22	41	113	27	11	12
29	8.8	6.3	5.9	4.6	---	3.2	27	46	63	21	10	11
30	8.4	6.3	5.8	4.5	---	3.1	29	42	18	18	12	12
31	8.5	---	5.7	4.4	---	3.1	---	43	---	16	17	---
TOTAL	272.0	232.1	189.5	160.7	110.2	102.0	309.3	1067	1561	993	455.8	557
MEAN	8.77	7.74	6.11	5.18	3.94	3.29	10.3	34.4	52.0	32.0	14.7	18.6
MAX	12	14	6.3	5.9	4.4	3.4	29	80	137	61	30	59
MIN	7.7	6.3	5.7	4.4	3.4	3.1	3.2	17	14	16	9.9	11
AC-FT	540	460	376	319	219	202	613	2120	3100	1970	904	1100

CAL YR 1980 TOTAL 8563.5 MEAN 23.4 MAX 217 MIN 4.0 AC-FT 16990
WTR YR 1981 TOTAL 6009.6 MEAN 16.5 MAX 137 MIN 3.1 AC-FT 11920

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO MAR. 18.

09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°28'24", long 106°22'02", in NE¼NE¼ sec.6, T.7 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank at downstream side of Forest Service road bridge, 2.4 mi (3.9 km) south of Red Cliff, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--58.3 mi² (151.0 km²).

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Red Cliff" October 1910 to September 1916.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft (2,677.1 m) National Geodetic Vertical Datum of 1929 (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft or 54.7 hm³) since June 7, 1966. Transmountain diversions above station through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-18, 1945-66), 86.6 ft³/s (2.453 m³/s), 62,740 acre-ft/yr (77.4 hm³/yr), prior to diversion through Homestake tunnel; 15 years (water years 1967-81), 36.4 ft³/s (1.031 m³/s), 26,370 acre-ft/yr (32.5 hm³/yr), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,300 ft³/s (36.8 m³/s) June 24, 1918, gage height, 6.2 ft (1.18 m), site and datum then in use; minimum observed, 0.60 ft³/s (0.017 m³/s) Jan. 25, 1915 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 258 ft³/s (7.31 m³/s) at 2400 June 7, gage height, 2.78 ft (0.847 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Feb. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	6.9	4.2	3.3	3.3	3.7	64	70	22	20	17
2	10	10	6.9	4.2	3.2	3.3	3.8	65	72	25	19	14
3	10	10	6.8	4.1	3.2	3.3	3.9	134	79	27	18	14
4	10	9.9	6.8	4.1	3.2	3.3	4.4	111	78	25	18	13
5	10	11	6.5	4.0	3.1	3.3	5.2	76	88	18	15	12
6	10	11	6.3	4.0	3.1	3.3	6.5	61	124	17	13	15
7	10	9.7	6.2	3.9	3.0	3.4	6.8	53	157	17	12	17
8	10	10	6.2	3.9	3.0	3.4	6.8	46	146	32	11	19
9	9.5	10	6.2	3.9	3.0	3.5	7.3	43	144	45	11	18
10	9.5	11	5.9	3.9	3.0	3.6	8.5	41	117	54	13	34
11	9.5	11	5.7	3.8	3.0	3.7	9.8	41	90	49	19	55
12	9.3	9.7	5.7	3.7	3.0	3.7	9.8	52	67	47	18	40
13	9.5	10	5.6	3.6	3.0	3.7	10	53	50	66	25	31
14	9.5	9.6	5.6	3.6	3.0	3.7	11	54	41	70	22	26
15	12	8.6	5.6	3.5	3.0	3.7	12	57	36	54	26	23
16	11	8.1	5.4	3.6	3.0	3.7	13	57	32	47	33	20
17	11	8.0	5.1	3.6	3.0	3.7	14	58	29	59	25	19
18	12	8.0	5.0	3.6	3.0	3.7	19	59	28	67	20	17
19	12	8.0	5.0	3.5	3.0	3.7	22	64	27	56	18	16
20	12	8.0	5.0	3.5	3.0	3.7	21	72	40	41	16	15
21	12	8.0	5.0	3.5	3.0	3.7	21	71	43	31	15	17
22	12	7.8	4.9	3.5	2.9	3.7	24	44	40	27	16	16
23	11	7.8	4.9	3.5	3.0	3.7	32	46	24	23	16	15
24	11	7.6	4.8	3.5	3.1	3.7	38	47	23	20	14	15
25	11	7.6	4.7	3.5	3.1	3.8	96	50	32	21	14	14
26	11	7.2	4.7	3.5	3.2	3.7	137	57	35	38	13	15
27	11	7.0	4.5	3.4	3.3	3.7	97	61	79	53	13	14
28	11	6.9	4.3	3.4	3.3	3.7	86	78	120	40	12	13
29	11	6.9	4.3	3.4	---	3.7	56	85	132	28	11	13
30	11	6.9	4.3	3.4	---	3.7	58	76	47	22	12	14
31	10	---	4.2	3.3	---	3.7	---	81	---	21	16	---
TOTAL	328.8	265.3	169.0	114.1	86.0	111.5	843.5	1957	2090	1162	524	581
MEAN	10.6	8.84	5.45	3.68	3.07	3.60	28.1	63.1	69.7	37.5	16.9	19.4
MAX	12	11	6.9	4.2	3.3	3.8	137	134	157	70	33	55
MIN	9.3	6.9	4.2	3.3	2.9	3.3	3.7	41	23	17	11	12
AC-FT	652	526	335	226	171	221	1670	3880	4150	2300	1040	1150

CAL YR 1980 TOTAL 13230.1 MEAN 36.1 MAX 390 MIN 4.2 AC-FT 26240
WTR YR 1981 TOTAL 8232.2 MEAN 22.6 MAX 157 MIN 2.9 AC-FT 16330

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 12, JUNE 28 TO JULY 29.

09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'45", in SW¼ sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi (0.6 km) upstream from mouth and 1.5 mi (2.4 km) southeast of Minturn.

DRAINAGE AREA.--33.5 mi^2 (86.8 km^2).

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,990 ft (2,435 m), from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Bolts ditch exports water from above station to tailings ponds and recreation lake along Eagle River. Diversion (0.2 mi (0.3 km) above station for water supply of school and for municipal supply of Minturn. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 50.2 ft^3/s (1.422 m^3/s), 36,370 acre-ft/yr (44.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft^3/s (21.4 m^3/s) June 30, 1957, gage height, 5.45 ft (1.661 m); maximum gage height, 5.54 ft (1.689 m) July 18, 1957; minimum daily discharge, 0.1 ft^3/s (0.003 m^3/s) Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 685 ft^3/s (19.4 m^3/s) at 0300 June 10, gage height, 5.13 ft (1.564 m), only peak above base of 400 ft^3/s (11 m^3/s); minimum daily, 1.1 ft^3/s (0.031 m^3/s) Feb. 11.

REVISIONS.--The maximum discharge for water year 1980 has been revised to 605 ft^3/s (17.1 m^3/s) at 0600 June 12, gage height, 4.97 ft (1.515 m), only peak above base of 400 ft^3/s (11 m^3/s), this figure supersedes that published in WDR-CO-80-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	5.6	3.9	2.9	1.5	1.4	3.3	111	166	141	32	24
2	6.1	5.4	3.8	3.1	1.2	1.5	4.0	129	195	125	28	19
3	5.9	5.4	3.8	3.1	1.3	1.7	4.0	212	243	113	27	18
4	5.4	5.2	3.8	2.9	1.5	1.8	3.9	153	262	87	25	18
5	5.4	5.1	3.9	2.7	1.4	1.7	3.8	105	269	74	21	16
6	5.2	5.3	4.1	2.7	1.5	1.9	4.6	82	368	70	19	21
7	5.2	5.4	4.1	2.5	1.4	1.9	5.0	64	360	64	18	24
8	5.0	5.5	3.8	2.5	1.5	1.7	5.2	48	360	79	17	51
9	5.0	5.5	3.6	2.5	1.6	1.7	5.7	41	420	72	16	39
10	4.7	5.2	3.2	2.6	1.5	1.6	9.0	36	476	100	18	76
11	5.0	5.0	3.4	2.4	1.1	1.5	9.4	36	448	76	24	165
12	4.5	5.2	3.5	2.4	1.7	1.7	9.9	33	384	100	21	93
13	5.4	5.9	3.5	2.2	1.5	1.9	10	30	283	185	32	69
14	6.1	6.3	3.2	2.3	1.6	2.1	13	30	202	107	29	55
15	7.1	5.4	3.4	2.5	1.6	2.1	14	33	107	79	30	47
16	7.8	4.5	3.5	2.7	1.6	2.3	16	32	86	79	43	39
17	7.2	4.2	3.5	2.9	1.5	2.5	16	34	107	109	32	33
18	7.1	4.4	3.5	2.6	1.5	2.7	20	38	129	145	26	29
19	7.2	4.6	3.4	2.4	1.5	2.9	25	39	98	89	22	26
20	7.3	4.6	3.2	2.2	1.6	2.8	28	42	164	68	19	24
21	7.0	4.4	3.2	2.0	1.4	2.6	23	44	185	54	20	27
22	6.8	4.6	3.4	1.8	1.4	2.6	20	37	188	46	26	26
23	6.5	4.8	3.4	1.8	1.4	2.6	19	37	149	41	28	22
24	5.6	4.6	3.2	1.9	1.5	2.6	25	42	133	36	23	22
25	5.8	4.5	3.4	1.9	1.5	2.6	41	50	129	35	21	22
26	5.8	4.3	3.2	1.5	1.5	3.2	55	72	125	56	19	21
27	6.3	4.1	3.2	1.6	1.4	3.6	61	98	137	71	17	19
28	5.7	4.5	3.2	1.6	1.5	3.3	64	151	188	50	16	18
29	5.4	4.2	3.1	1.6	---	3.2	77	175	129	38	15	17
30	5.6	4.1	2.8	1.4	---	3.2	96	164	96	33	16	18
31	5.6	---	3.1	1.5	---	3.4	---	192	---	30	21	---
TOTAL	184.8	147.8	107.3	70.7	41.2	72.3	690.8	2390	6586	2452	721	1098
MEAN	5.96	4.93	3.46	2.28	1.47	2.33	23.0	77.1	220	79.1	23.3	36.6
MAX	7.8	6.3	4.1	3.1	1.7	3.6	96	212	476	185	43	165
MIN	4.5	4.1	2.8	1.4	1.1	1.4	3.3	30	86	30	15	16
AC-FT	367	293	213	140	82	143	1370	4740	13060	4860	1430	2180

CAL YR 1980 TOTAL 19427.3 MEAN 53.1 MAX 562 MIN 2.5 AC-FT 38530
WTR YR 1981 TOTAL 14561.9 MEAN 39.9 MAX 476 MIN 1.1 AC-FT 28880

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION (REVISED).--Lat 39°37'33", long 106°16'39", in NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft (3.0 m) downstream from bridge pier on Interstate 70, 0.2 mi (0.3 km) upstream from Black Gore Creek, 4.4 mi (7.1 km) east of Vail, and 8.4 mi (13.5 km) northeast of Minturn.

DRAINAGE AREA.--14.3 mi^2 (37.0 km^2).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (2,621 m), from topographic map. Oct. 1, 1947 to Sept. 30, 1956, Oct. 1, 1963 to Sept. 30 1980, at site 1200 ft (366 m) upstream at different datum. See WRD-CO-80-2 for history of changes prior to Sept. 30, 1980.

REMARKS.--Records fair except those for winter period and period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 28.8 ft^3/s (0.816 m^3/s), 20,870 acre-ft/yr (25.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft^3/s (16.7 m^3/s) June 10, 1952, gage height, 6.58 ft (2.006 m), datum then in use, from rating curve extended above 260 ft^3/s (7.4 m^3/s); maximum gage height, 6.65 ft (2.027 m), June 18, 1951, datum then in use; minimum daily discharge, 1.2 ft^3/s (0.034 m^3/s) Mar. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 551 ft^3/s (15.6 m^3/s) at 0130 June 6, gage height, 2.40 ft (0.732 m), only peak above base of 200 ft^3/s (5.7 m^3/s); minimum daily, 2.4 ft^3/s (0.068 m^3/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.4	3.1	2.8	2.4	2.5	3.1	27	164	36	19	12
2	4.2	4.9	3.0	2.8	2.5	2.5	3.1	29	292	47	18	11
3	4.2	4.6	3.0	2.8	2.5	2.5	3.4	31	286	44	17	10
4	4.3	4.3	2.9	2.8	2.5	2.6	3.0	27	331	38	16	9.5
5	4.3	4.3	2.9	2.8	2.5	2.6	3.9	24	366	37	16	8.2
6	4.4	4.6	2.9	2.8	2.5	2.6	3.4	22	324	33	15	9.9
7	4.5	5.2	3.0	2.8	2.5	2.6	3.4	21	118	32	14	9.5
8	4.9	5.4	3.0	2.7	2.5	2.5	3.4	21	236	34	14	14
9	4.9	5.2	3.0	2.8	2.5	2.4	3.6	21	274	33	13	16
10	4.7	4.6	2.9	3.0	2.5	2.4	5.4	20	97	40	13	20
11	5.0	5.2	2.8	3.2	2.5	2.4	8.6	19	64	34	14	17
12	5.6	4.9	2.9	2.7	2.5	2.4	8.6	18	55	38	15	15
13	6.0	5.2	2.8	2.7	2.5	2.5	8.2	18	44	51	17	14
14	8.0	5.2	2.8	2.7	2.4	2.5	9.9	18	47	42	16	13
15	9.9	4.0	2.8	2.7	2.4	2.4	11	19	47	37	15	12
16	6.0	5.7	2.9	2.7	2.4	2.4	10	20	45	42	15	12
17	6.6	4.6	2.9	2.7	2.4	2.4	11	21	50	50	15	11
18	9.9	6.0	2.9	2.8	2.4	2.4	16	21	50	51	14	11
19	10	6.3	2.8	2.6	2.4	2.4	19	27	50	50	14	11
20	9.5	6.3	2.8	2.6	2.4	2.5	17	31	53	40	13	10
21	8.6	6.3	2.8	2.6	2.4	2.4	12	33	51	34	13	11
22	8.6	9.0	2.8	2.6	2.4	2.4	14	30	51	30	13	11
23	6.6	6.3	2.8	2.7	2.4	2.4	15	29	53	29	13	10
24	4.6	5.7	2.8	2.8	2.4	2.4	17	30	51	27	13	10
25	5.7	4.3	2.8	2.6	2.5	2.4	18	34	48	27	13	10
26	6.3	3.9	2.8	2.5	2.5	2.7	19	50	45	28	13	11
27	6.0	3.7	2.8	2.5	2.5	2.9	21	77	44	28	12	11
28	5.4	3.7	2.8	2.5	2.5	2.8	22	124	44	24	12	10
29	5.4	3.8	2.8	2.4	---	2.6	23	194	40	22	12	10
30	5.4	3.3	2.8	2.4	---	2.6	25	173	36	21	12	10
31	5.2	---	2.8	2.4	---	2.8	---	160	---	20	12	---
TOTAL	188.9	151.9	88.9	83.5	68.8	77.9	341.0	1389	3456	1099	441	350.1
MEAN	6.09	5.06	2.87	2.69	2.46	2.51	11.4	44.8	115	35.5	14.2	11.7
MAX	10	9.0	3.1	3.2	2.5	2.9	25	194	366	51	19	20
MIN	4.2	3.3	2.8	2.4	2.4	2.4	3.0	18	36	20	12	8.2
AC-FT	375	301	176	166	136	155	676	2760	6850	2180	875	694

CAL YR 1980 TOTAL 11724.2 MEAN 32.0 MAX 296 MIN 1.6 AC-FT 23250
WTR YR 1981 TOTAL 7736.0 MEAN 21.2 MAX 366 MIN 2.4 AC-FT 15340

NOTE.--NO GAGE-HEIGHT RECORD JULY 30 TO SEPT. 2.

09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) from U.S. Highway 6, 0.3 mi (0.5 km) upstream from Timber Creek, 2.5 mi (4.0 km) upstream from mouth, and 9 mi (14 km) east of Minturn.

DRAINAGE AREA.--11.8 mi^2 (30.6 km^2).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,150 ft (2,789 m), from topographic map. Prior to October 1963, at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Natural regulation by two small recreation lakes above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 16.5 ft^3/s (0.467 m^3/s), 11,950 acre-ft/yr (14.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft^3/s (10.3 m^3/s) June 7, 1952, gage height, 5.42 ft (1.652 m); maximum gage height, 6.00 ft (1.829 m) Mar. 30, 1968 (backwater from ice); minimum daily discharge, 0.90 ft^3/s (0.025 m^3/s) Feb. 22, 1968, Jan. 30, 1970, Feb. 4 to Mar. 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104 ft^3/s (2.95 m^3/s) at 1800 June 6, gage height, 3.40 ft (1.036 m), no peak above base of 150 ft^3/s (4.2 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Feb. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.6	2.4	2.2	1.5	1.7	1.2	30	74	16	6.0	3.9
2	2.9	2.7	2.4	2.2	1.3	1.7	1.3	35	78	18	5.8	3.5
3	2.9	2.9	2.4	2.2	1.1	1.7	1.4	45	78	16	5.4	3.6
4	2.9	3.0	2.4	2.2	1.1	1.7	1.5	36	83	13	5.2	3.4
5	2.9	3.1	2.4	2.2	1.1	1.7	1.3	32	80	12	5.1	3.6
6	2.9	3.0	2.4	2.2	1.1	1.7	1.5	30	85	11	4.8	3.7
7	2.9	3.0	2.4	2.2	1.1	1.7	1.7	26	85	10	4.7	4.9
8	2.8	2.9	2.4	2.2	1.1	1.7	2.0	23	83	12	4.6	4.6
9	2.8	2.9	2.0	2.2	1.1	1.7	2.5	22	80	11	4.6	5.2
10	2.8	2.9	2.0	2.1	1.0	1.7	3.0	20	74	11	5.2	6.9
11	2.7	2.9	2.0	2.1	1.0	1.7	3.4	20	67	9.4	5.4	6.7
12	2.8	2.9	2.0	2.1	1.1	1.7	4.0	19	59	14	6.2	4.9
13	3.0	2.9	2.0	2.1	1.3	1.7	4.5	19	52	13	6.5	4.6
14	3.0	2.5	2.0	2.1	1.5	1.7	5.2	19	46	10	5.6	4.3
15	3.0	2.1	2.0	2.1	1.5	1.7	6.9	19	43	9.2	5.6	4.0
16	2.9	2.2	2.2	2.1	1.5	1.7	6.2	20	40	11	5.4	3.8
17	2.8	2.3	2.3	2.1	1.5	1.7	7.4	20	34	13	4.9	3.7
18	2.7	2.3	2.3	2.1	1.5	1.7	8.9	20	31	11	4.6	3.6
19	2.6	2.3	2.3	2.1	1.5	1.7	9.4	20	30	10	4.2	3.5
20	2.5	2.3	2.3	2.0	1.5	1.7	9.4	22	27	8.4	3.9	3.5
21	2.5	2.3	2.3	2.0	1.6	1.7	8.1	23	25	7.6	4.3	3.8
22	2.5	2.3	2.3	2.0	1.7	1.7	7.9	22	24	7.1	4.4	3.5
23	2.3	2.3	2.4	1.9	1.7	1.7	9.2	23	21	6.9	3.9	3.4
24	2.2	2.3	2.4	1.8	1.7	1.7	12	26	20	6.7	3.8	3.4
25	2.1	2.3	2.4	1.8	1.7	1.7	13	32	18	6.5	3.8	3.6
26	2.3	2.0	2.4	1.8	1.7	1.7	16	41	17	7.4	3.8	3.7
27	2.5	1.8	2.4	1.8	1.7	1.7	17	52	19	7.4	3.7	3.4
28	2.4	2.1	2.4	1.7	1.7	1.5	19	68	19	6.5	3.5	3.4
29	2.4	2.4	2.4	1.6	---	1.4	23	74	16	6.3	3.5	3.4
30	2.5	2.4	2.4	1.6	---	1.3	26	74	15	6.0	3.6	3.4
31	2.6	---	2.4	1.6	---	1.2	---	74	---	6.0	3.7	---
TOTAL	83.0	75.9	70.8	62.4	38.9	51.3	233.9	1006	1423	313.4	145.7	120.9
MEAN	2.68	2.53	2.28	2.01	1.39	1.65	7.80	32.5	47.4	10.1	4.70	4.03
MAX	3.0	3.1	2.4	2.2	1.7	1.7	26	74	85	18	6.5	6.9
MIN	2.1	1.8	2.0	1.6	1.0	1.2	1.2	19	15	6.0	3.5	3.4
AC-FT	165	151	140	124	77	102	464	2000	2820	622	289	240

CAL YR 1980 TOTAL 6165.4 MEAN 16.8 MAX 191 MIN 1.8 AC-FT 12230
WTR YR 1981 TOTAL 3625.2 MEAN 9.93 MAX 85 MIN 1.0 AC-FT 7190

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO APR. 15.

09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N½ sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi (0.5 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 4.5 mi (7.2 km) east of Vail, and 8.5 mi (13.7 km) northeast of Minturn.

DRAINAGE AREA.--4.37 mi² (11.32 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,625 ft (2,629 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 8.99 ft³/s (0.255 m³/s), 6,510 acre-ft/yr (8.03 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s (6.37 m³/s) June 10, 1973, gage height, 3.82 ft (1.164 m), from rating curve extended above 82 ft³/s (2.3 m³/s); minimum daily determined, 0.10 ft³/s (0.003 m³/s) Feb. 8, 1967, Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 194 ft³/s (5.49 m³/s) at 1830 June 7, gage height, 3.77 ft (1.149 m), only peak above base of 50 ft³/s (1.4 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) Mar. 4-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.1	1.4	.60	.30	.40	.40	31	73	15	7.8	6.6
2	2.2	2.1	1.4	.60	.30	.40	.40	35	76	20	7.2	5.4
3	2.2	2.1	1.4	.60	.30	.30	.40	37	80	20	6.9	5.0
4	2.1	2.1	1.4	.60	.30	.20	.40	32	93	17	6.6	4.5
5	2.0	2.1	1.4	.60	.30	.20	.50	29	96	16	6.6	4.8
6	1.9	2.1	1.4	.60	.30	.20	.70	23	116	15	6.1	5.4
7	1.8	2.1	1.4	.60	.30	.20	1.0	18	125	14	5.9	7.2
8	1.6	2.1	1.4	.60	.30	.20	1.0	15	122	13	5.4	11
9	1.6	2.1	1.4	.60	.30	.20	1.0	13	100	17	5.4	11
10	1.8	2.1	1.4	.60	.30	.20	1.0	11	84	25	6.4	14
11	1.6	2.2	1.4	.60	.30	.20	1.0	10	75	17	7.2	19
12	1.5	2.2	1.2	.60	.40	.20	1.4	9.0	56	18	7.5	14
13	1.6	2.4	.80	.60	.40	.20	1.6	8.7	45	20	11	11
14	1.6	2.2	.60	.60	.40	.20	2.0	8.1	31	17	9.0	9.0
15	1.8	2.1	.60	.60	.40	.20	2.2	8.7	21	16	8.1	8.1
16	1.4	2.1	.60	.60	.40	.40	2.5	8.7	20	22	8.1	7.2
17	1.3	2.1	.60	.60	.40	.40	2.8	8.4	23	25	7.5	6.4
18	1.8	2.0	.60	.60	.40	.40	3.0	8.4	21	26	6.4	5.9
19	1.8	2.0	.60	.60	.40	.40	3.4	9.3	24	22	6.1	5.4
20	1.8	2.0	.60	.40	.40	.40	3.8	12	27	18	5.9	5.2
21	1.8	1.8	.60	.40	.40	.40	4.2	13	27	14	6.6	5.7
22	1.9	1.6	.60	.40	.40	.40	4.7	11	23	13	8.4	5.2
23	1.9	1.6	.60	.40	.40	.40	5.0	11	21	11	6.9	5.0
24	2.1	1.4	.60	.40	.40	.40	6.6	11	20	10	6.6	4.8
25	2.2	1.4	.60	.40	.40	.40	9.6	15	17	10	6.4	4.5
26	2.1	1.4	.60	.40	.40	.40	17	23	17	10	6.1	4.8
27	2.0	1.4	.60	.40	.40	.40	23	38	17	9.6	5.7	4.5
28	2.0	1.4	.60	.40	.40	.40	21	62	19	8.1	5.4	4.1
29	2.0	1.4	.60	.40	---	.40	27	69	16	7.8	5.4	4.1
30	2.1	1.4	.60	.40	---	.40	30	66	15	7.2	5.4	4.0
31	2.1	---	.60	.40	---	.40	---	67	---	7.5	6.1	---
TOTAL	58.0	57.1	28.20	16.20	10.10	9.90	178.60	721.3	1500	481.2	210.1	212.8
MEAN	1.87	1.90	.91	.52	.36	.32	5.95	23.3	50.0	15.5	6.78	7.09
MAX	2.4	2.4	1.4	.60	.40	.40	30	69	125	26	11	19
MIN	1.3	1.4	.60	.40	.30	.20	.40	8.1	15	7.2	5.4	4.0
AC-FT	115	113	56	32	20	20	354	1430	2980	954	417	422

CAL YR 1980 TOTAL 4437.31 MEAN 12.1 MAX 107 MIN .47 AC-FT 8800
WTR YR 1981 TOTAL 3483.50 MEAN 9.54 MAX 125 MIN .20 AC-FT 6910

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 23.

09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW¼SW¼ sec.1, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft (30 m) downstream from Pitkin ditch headgate, 1,000 ft (300 m) upstream from U.S. Highway 6, 1,200 ft (370 m) upstream from mouth, 4.0 mi (6.4 km) east of Vail, and 8 mi (13 km) northeast of Minturn.

DRAINAGE AREA.--5.39 mi² (13.96 km²).

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1964-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,525 ft (2,598 m), from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft (0.299 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station by Pitkin ditch for irrigation downstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 10.8 ft³/s (0.306 m³/s), 7,820 acre-ft/yr (9.64 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 221 ft³/s (6.26 m³/s) June 15, 1978, gage height, 2.55 ft (0.777 m); maximum gage height, 2.79 ft (0.850 m) June 20, 1968; minimum daily discharge, 0.24 ft³/s (0.007 m³/s) Oct. 29 to Nov. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft³/s (3.34 m³/s) at 2300 June 8, gage height, 2.58 ft (0.786 m), only peak above base of 60 ft³/s (1.7 m³/s); minimum daily, 0.40 ft³/s (0.011 m³/s) Mar. 27 to Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.0	1.6	1.2	.80	1.0	.40	26	36	19	4.6	9.3
2	2.8	3.3	1.6	1.2	.60	1.0	.40	28	36	31	4.6	7.4
3	2.8	3.6	1.6	1.2	.60	1.0	.40	31	33	28	4.2	6.9
4	2.8	3.6	1.6	1.2	.60	1.0	.40	28	36	23	3.9	6.4
5	2.6	3.6	1.6	1.0	.60	1.0	.40	26	36	19	3.9	5.9
6	2.6	3.6	1.6	1.0	.60	1.0	.40	23	44	16	3.6	6.4
7	2.6	3.6	1.6	1.0	.60	1.0	.40	19	48	13	3.3	7.4
8	2.6	3.6	1.6	1.0	.60	1.0	.60	17	74	13	3.3	8.0
9	2.5	3.3	1.6	1.0	.60	1.0	.80	16	83	16	3.3	8.6
10	2.5	3.0	1.6	1.0	.60	1.0	1.0	14	71	21	4.2	10
11	2.5	3.3	1.6	1.0	.60	1.0	1.2	12	74	17	5.9	11
12	2.5	3.6	1.6	1.0	.60	1.0	1.4	11	71	17	5.4	10
13	2.6	3.3	1.6	1.0	.60	1.0	1.8	10	56	22	8.6	10
14	2.8	3.3	1.6	1.0	.60	1.0	2.0	9.3	44	19	7.4	8.6
15	3.0	3.3	1.6	1.0	.60	1.0	2.2	9.3	30	17	7.4	7.4
16	3.0	3.0	1.6	1.0	.60	1.0	2.4	8.6	26	28	8.6	6.9
17	3.0	3.0	1.5	1.0	.60	1.0	2.7	8.6	28	33	7.4	6.4
18	3.6	2.8	1.5	1.0	.60	1.0	3.0	8.6	28	31	6.4	5.9
19	3.6	2.8	1.5	1.0	.60	1.0	3.6	8.0	28	24	5.4	5.4
20	3.6	2.8	1.2	1.0	.60	1.0	4.0	8.6	36	18	5.4	5.9
21	3.6	2.8	1.0	1.0	.60	1.0	4.5	12	36	14	5.9	6.4
22	3.6	2.6	1.0	1.0	.80	1.0	5.2	11	35	12	8.6	5.9
23	3.3	2.6	1.0	1.0	1.0	1.0	6.0	11	30	10	6.9	5.4
24	3.6	2.6	1.0	1.0	1.0	.80	6.9	10	28	10	6.4	5.4
25	3.9	2.6	1.0	1.0	1.0	.60	10	14	23	9.3	6.4	5.0
26	3.6	2.6	1.0	1.0	1.0	.60	17	21	21	8.6	6.4	5.9
27	3.6	2.5	1.0	1.0	1.0	.40	19	30	21	8.0	5.9	5.4
28	3.3	2.5	1.0	1.0	1.0	.40	18	36	30	6.9	5.4	5.0
29	3.3	2.5	1.0	1.0	---	.40	21	41	22	5.9	5.0	5.4
30	3.6	2.1	1.0	1.0	---	.40	23	36	18	5.4	5.9	5.4
31	3.3	---	1.2	1.0	---	.40	---	41	---	4.6	7.4	---
TOTAL	95.5	90.8	42.5	31.8	19.60	27.00	160.10	585.0	1182	519.7	177.0	209.0
MEAN	3.08	3.03	1.37	1.03	.70	.87	5.34	18.9	39.4	16.8	5.71	6.97
MAX	3.9	3.6	1.6	1.2	1.0	1.0	23	41	83	33	8.6	11
MIN	2.5	2.1	1.0	1.0	.60	.40	.40	8.0	18	4.6	3.3	5.0
AC-FT	189	180	84	63	39	54	318	1160	2340	1030	351	415

CAL YR 1980 TOTAL 4803.60 MEAN 13.1 MAX 125 MIN 1.0 AC-FT 9530
WTR YR 1981 TOTAL 3140.00 MEAN 8.60 MAX 83 MIN .40 AC-FT 6230

NOTE.--NO GAGE-HEIGHT RECORD DEC. 20 TO APR. 23.

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°39'02", long 106°19'16", at west line of sec.2, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.2 mi (0.3 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 3.0 mi (4.8 km) northeast of Vail, and 7.0 mi (11.3 km) northeast of Minturn.

DRAINAGE AREA.--6.03 mi² (15.62 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,413 ft (2,564 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 11.5 ft³/s (0.326 m³/s), 8,330 acre-ft/yr (10.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft³/s (10.1 m³/s) June 15, 1978, gage height, 4.07 ft (1.241 m); maximum gage height, 4.29 ft (1.308 m) July 4, 1975 (backwater from debris); minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Feb. 8, 1967, Jan. 29, 1970, Feb. 10, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 320 ft³/s (9.06 m³/s) at 2100 June 7, gage height 4.01 ft (1.222 m), only peak above base of 80 ft³/s (2.3 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) Feb. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.8	1.2	1.2	.50	.40	.80	44	78	14	6.4	5.8
2	1.1	1.9	1.2	1.0	.40	.40	1.0	44	98	21	6.0	4.5
3	1.1	1.8	1.2	1.0	.40	.40	1.2	50	138	21	4.6	4.3
4	1.1	1.9	1.2	1.0	.40	.40	1.4	42	152	17	4.2	4.0
5	1.0	1.9	1.2	1.0	.40	.40	1.8	35	158	14	3.8	5.3
6	1.0	2.1	1.2	1.0	.40	.40	2.0	32	175	12	3.3	7.7
7	1.0	2.0	1.2	1.0	.40	.40	2.2	24	180	11	3.4	7.1
8	1.0	2.0	1.0	1.0	.40	.40	2.4	21	142	10	2.9	6.2
9	1.0	1.9	.80	1.0	.40	.40	2.6	18	135	9.1	2.7	6.2
10	.96	2.0	.80	1.0	.20	.40	2.8	15	112	11	3.5	8.7
11	1.0	1.8	.80	1.0	.20	.40	3.1	15	125	8.7	6.2	8.1
12	1.0	1.9	.80	1.0	.40	.40	3.3	12	88	9.1	5.8	7.7
13	1.2	2.2	.80	1.0	.40	.40	3.6	11	50	9.5	7.5	7.5
14	1.2	2.1	.80	1.0	.40	.40	4.2	10	24	8.9	7.3	6.4
15	1.4	2.0	.80	1.0	.40	.40	4.5	11	15	8.3	6.9	5.6
16	1.4	1.8	.80	1.0	.40	.40	4.5	11	14	11	7.3	5.1
17	1.5	1.6	.80	1.0	.40	.40	5.4	11	17	12	7.1	5.3
18	1.7	1.4	.80	1.0	.40	.40	7.1	10	17	12	6.2	5.4
19	1.7	1.4	.80	1.0	.40	.40	8.3	11	18	10	5.0	4.5
20	1.8	1.4	.80	1.0	.40	.40	8.9	15	22	8.5	4.5	4.2
21	2.0	1.4	1.2	1.0	.40	.40	7.7	18	24	7.3	4.0	5.3
22	2.0	1.4	1.2	1.0	.40	.40	7.7	15	24	6.7	4.6	5.1
23	1.9	1.4	1.2	.80	.40	.40	7.9	16	21	6.6	3.9	4.6
24	1.8	1.4	1.2	.70	.40	.40	12	18	20	6.6	3.8	5.4
25	1.9	1.2	1.2	.60	.40	.40	18	21	20	6.6	4.2	5.3
26	1.8	1.2	1.2	.60	.40	.40	27	32	18	7.1	3.9	5.1
27	1.9	1.2	1.2	.60	.40	.40	34	44	19	7.1	3.5	4.5
28	1.6	1.2	1.2	.60	.40	.40	36	62	24	6.9	3.3	4.5
29	1.7	1.2	1.2	.60	---	.50	44	80	19	6.6	3.4	4.2
30	1.8	1.2	1.2	.60	---	.50	44	123	15	6.6	3.4	4.6
31	1.8	---	1.2	.60	---	.50	---	92	---	6.6	4.3	---
TOTAL	44.46	49.7	32.20	27.90	10.90	12.70	309.40	963	1962	312.8	146.9	168.2
MEAN	1.43	1.66	1.04	.90	.39	.41	10.3	31.1	65.4	10.1	4.74	5.61
MAX	2.0	2.2	1.2	1.2	.50	.50	44	123	180	21	7.5	8.7
MIN	.96	1.2	.80	.60	.20	.40	.80	10	14	6.6	2.7	4.0
AC-FT	88	99	64	55	22	25	614	1910	3890	620	291	334

CAL YR 1980 TOTAL 4301.42 MEAN 11.8 MAX 112 MIN .74 AC-FT 8530
WTR YR 1981 TOTAL 4040.16 MEAN 11.1 MAX 180 MIN .20 AC-FT 8010

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 15.

09066300 MIDDLE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'45", long 106°22'54", in sec.6, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) upstream from Interstate Highway 70, 0.2 mi (0.3 km) upstream from mouth, and 5.0 mi (8.0 km) northeast of Minturn.

DRAINAGE AREA.--5.97 mi^2 (15.46 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,200 ft (2,499 m), from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 5.56 ft^3/s (0.157 m^3/s), 4,030 acre-ft/yr (4.97 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 ft^3/s (3.29 m^3/s) June 20, 1974, gage height, 2.65 ft (0.808 m) datum then in use; maximum gage height, 3.23 ft (0.985 m) datum then in use, July 4, 1975 (backwater from debris); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63 ft^3/s (1.78 m^3/s) at 2100 June 10, gage height, 2.97 ft (0.905 m), only peak above base of 60 ft^3/s (1.7 m^3/s); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Feb. 10 to Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.72	.50	.20	.20	.10	.14	4.2	20	9.0	2.7	1.9
2	.83	.70	.50	.20	.20	.10	.17	4.8	22	12	2.6	1.5
3	.83	.70	.50	.20	.20	.10	.20	7.8	25	11	2.4	1.4
4	.80	.65	.50	.20	.20	.10	.19	6.4	28	9.9	2.5	1.4
5	.80	.65	.50	.20	.20	.10	.20	5.7	30	8.6	2.2	1.3
6	.80	.63	.50	.20	.20	.10	.24	5.5	33	7.8	2.1	1.7
7	.83	.65	.50	.20	.20	.10	.27	5.1	38	7.0	2.0	1.6
8	.83	.65	.40	.20	.20	.10	.27	4.6	44	6.9	2.0	1.4
9	.80	.63	.40	.20	.20	.10	.31	4.2	50	6.5	1.9	1.4
10	.80	.63	.40	.20	.10	.10	.39	3.8	51	7.8	2.0	1.9
11	.78	.61	.40	.20	.10	.10	.48	3.9	52	6.0	2.5	1.5
12	.75	.50	.40	.20	.10	.10	.50	3.6	39	6.2	2.7	1.3
13	.97	.40	.40	.20	.10	.10	.50	3.3	37	6.2	3.3	1.2
14	.94	.40	.40	.20	.10	.10	.60	3.3	36	6.0	2.6	1.2
15	1.0	.40	.40	.20	.10	.10	.70	3.8	33	5.2	2.4	1.1
16	.94	.40	.40	.20	.10	.10	.80	3.5	29	5.8	2.4	1.1
17	.97	.40	.40	.20	.10	.10	.80	3.4	27	6.0	2.2	1.0
18	1.0	.40	.40	.20	.10	.10	.90	3.4	24	6.0	2.0	.94
19	.97	.40	.40	.20	.10	.10	1.0	3.5	22	5.1	1.8	.92
20	.97	.40	.40	.20	.10	.10	1.1	3.8	22	4.6	1.8	.89
21	.82	.40	.40	.20	.10	.10	1.2	4.5	21	4.3	1.8	1.0
22	.80	.40	.40	.20	.10	.10	1.3	4.1	18	4.0	2.0	.94
23	.80	.40	.40	.20	.10	.10	1.3	4.2	16	3.8	1.8	.83
24	.80	.50	.40	.20	.10	.10	1.4	4.6	14	3.8	1.7	.86
25	.80	.50	.40	.20	.10	.10	1.7	5.0	12	3.4	1.9	.86
26	.80	.50	.40	.20	.10	.10	2.0	5.7	12	3.8	1.7	.94
27	.78	.50	.40	.20	.10	.10	2.5	7.6	12	3.6	1.6	.83
28	.80	.50	.40	.20	.10	.10	2.7	11	14	3.3	1.5	.72
29	.86	.50	.40	.20	---	.10	3.0	15	12	2.9	1.4	.70
30	.83	.50	.20	.20	---	.10	3.6	16	10	2.8	1.5	.70
31	.72	---	.20	.20	---	.12	---	18	---	2.8	1.7	---
TOTAL	26.28	15.62	12.70	6.20	3.70	3.12	30.46	183.3	803	182.1	64.7	35.03
MEAN	.85	.52	.41	.20	.13	.10	1.02	5.91	26.8	5.87	2.09	1.17
MAX	1.0	.72	.50	.20	.20	.12	3.6	18	52	12	3.3	1.9
MIN	.72	.40	.20	.20	.10	.10	.14	3.3	10	2.8	1.4	.70
AC-FT	52	31	25	12	7.3	6.2	60	364	1590	361	128	69

CAL YR 1980 TOTAL 2388.08 MEAN 6.52 MAX 66 MIN .20 AC-FT 4740
WTR YR 1981 TOTAL 1366.21 MEAN 3.74 MAX 52 MIN .10 AC-FT 2710

NOTE.--NO GAGE-HEIGHT RECORD NOV. 12 TO MAR. 30.

09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", Eagle County, Hydrologic Unit 14010003, on left bank 150 ft (46 m) upstream from road culvert, 1,400 ft (430 m) upstream from Indian Creek, and 6.8 mi (10.9 km) north of Minturn.

DRAINAGE AREA.--7.27 mi^2 (18.83 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,212 ft (2,809 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 8.69 ft^3/s (0.246 m^3/s), 6,300 acre-ft/yr (7.77 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 207 ft^3/s (5.86 m^3/s) June 10, 1973, gage height, 4.41 ft (1.344 m), from rating curve extended above 120 ft^3/s (3.4 m^3/s); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft^3/s (2.21 m^3/s) at 2030 June 8, gage height, 3.83 ft (1.167 m), from peak stage indicator, only peak above base of 70 ft^3/s (2.0 m^3/s); minimum daily, 0.84 ft^3/s (0.024 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.3	1.2	1.0	1.1	.94	22	42	13	3.8	2.9
2	1.3	1.4	1.3	1.3	.93	1.1	.96	23	43	19	3.6	2.3
3	1.3	1.4	1.3	1.3	.98	1.2	1.0	31	46	17	3.3	2.3
4	1.3	1.5	1.3	1.2	1.1	1.2	1.0	27	48	14	3.5	2.0
5	1.3	1.4	1.3	1.2	1.0	1.2	.98	24	48	12	3.1	2.0
6	1.3	1.4	1.4	1.1	1.1	1.2	.94	22	48	11	2.9	2.6
7	1.3	1.4	1.4	1.0	1.0	1.2	.96	19	52	10	2.8	2.5
8	1.4	1.4	1.4	1.1	1.1	1.2	1.0	17	52	10	2.7	2.3
9	1.4	1.4	1.3	1.1	1.1	1.1	1.2	15	50	13	2.7	2.1
10	1.4	1.4	1.1	1.1	.95	1.1	1.6	15	47	13	3.9	2.2
11	1.4	1.4	1.2	1.1	.84	1.1	2.4	14	44	9.8	4.0	2.0
12	1.4	1.5	1.2	1.0	1.2	1.0	2.6	12	36	10	4.4	2.0
13	2.0	1.8	1.2	1.0	1.1	1.0	2.4	12	31	9.9	4.8	2.0
14	1.9	1.8	1.2	1.0	1.1	.98	2.4	12	26	8.6	3.6	2.0
15	2.2	1.7	1.3	1.1	1.1	.97	2.7	12	22	8.0	3.4	1.9
16	1.9	1.5	1.3	1.2	1.1	.97	3.0	12	20	9.3	3.4	1.8
17	1.9	1.3	1.3	1.2	1.1	.97	4.2	11	20	9.6	2.9	1.7
18	1.7	1.2	1.3	1.2	1.1	.96	5.2	12	18	8.6	2.6	1.7
19	1.7	1.3	1.3	1.1	1.1	.95	6.0	13	18	7.6	2.5	1.6
20	1.7	1.4	1.3	1.1	1.1	.94	6.3	15	18	6.5	2.4	1.6
21	1.7	1.4	1.3	1.0	1.1	.94	5.0	15	18	5.9	2.4	2.1
22	1.6	1.4	1.3	1.1	1.1	.94	4.5	14	16	5.6	2.9	1.8
23	1.5	1.4	1.3	1.1	1.1	.94	4.9	15	15	5.3	2.5	1.7
24	1.5	1.4	1.3	1.1	1.1	.94	7.1	16	14	5.1	2.6	1.9
25	1.5	1.4	1.3	1.1	1.1	.94	9.3	17	12	5.0	2.7	1.9
26	1.5	1.3	1.3	1.1	1.1	.96	12	21	12	5.5	2.4	2.0
27	1.5	1.3	1.3	1.1	1.1	1.0	14	26	17	5.6	2.2	1.7
28	1.5	1.4	1.3	1.1	1.1	1.0	15	32	20	4.7	2.0	1.6
29	1.5	1.4	1.3	1.1	---	.98	17	40	14	4.3	2.1	1.7
30	1.5	1.4	1.1	1.1	---	.94	20	39	12	4.0	2.4	1.7
31	1.5	---	1.2	1.1	---	.94	---	43	---	3.8	2.6	---
TOTAL	47.9	42.9	39.7	34.6	29.90	31.96	156.58	618	879	274.7	93.1	59.6
MEAN	1.55	1.43	1.28	1.12	1.07	1.03	5.22	19.9	29.3	8.86	3.00	1.99
MAX	2.2	1.8	1.4	1.3	1.2	1.2	20	43	52	19	4.8	2.9
MIN	1.3	1.2	1.1	1.0	.84	.94	.94	11	12	3.8	2.0	1.6
AC-FT	95	85	79	69	59	63	311	1230	1740	545	185	118

CAL YR 1980 TOTAL 3645.70 MEAN 9.96 MAX 113 MIN 1.0 AC-FT 7230
WTR YR 1981 TOTAL 2307.94 MEAN 6.32 MAX 52 MIN .84 AC-FT 4580

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO APR. 8.

09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft (170 m) upstream from U.S. Highways 6 and 24, and 700 ft (210 m) upstream from mouth.

DRAINAGE AREA.--15.7 mi² (40.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914 (fragmentary), May 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,453 ft (2,272 m), from topographic map. Prior to May 1, 1974, nonrecording gage near present site at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation above and below station. Slight natural regulation by several small lakes in headwaters.

AVERAGE DISCHARGE.--7 years (water years 1975-81) 11.0 ft³/s (0.312 m³/s) 7,970 acre-ft/yr (9.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) June 13, 1978, gage height, 2.53 ft (0.771 m); minimum daily, 0.55 ft³/s (0.016 m³/s) Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 91 ft³/s (2.58 m³/s) at 2200 June 9, gage height, 2.20 ft (0.671 m), only peak above base of 80 ft³/s (2.3 m³/s); minimum daily, 1.0 ft³/s (0.028 m³/s) Jan. 20, Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.3	2.0	1.6	1.4	1.4	1.8	14	32	20	4.7	3.8
2	1.2	2.2	2.0	1.6	1.3	1.6	1.8	16	35	25	4.1	3.5
3	1.2	2.2	2.0	1.6	1.4	1.6	1.8	30	40	23	2.8	2.9
4	1.6	2.2	2.0	1.6	1.4	1.6	1.8	28	45	18	3.3	2.0
5	1.5	2.4	2.0	1.4	1.4	1.6	1.8	18	47	16	2.4	2.7
6	1.4	2.3	2.0	1.4	1.4	1.8	2.0	14	53	15	1.6	4.4
7	1.2	2.4	2.0	1.4	1.4	1.8	2.1	13	57	14	1.6	4.7
8	1.2	2.4	1.8	1.4	1.6	1.5	2.3	11	66	12	1.4	6.7
9	2.0	2.4	1.6	1.4	1.6	1.4	3.2	9.2	77	14	1.8	5.8
10	1.9	2.4	1.9	1.4	1.6	1.2	3.4	6.8	76	16	3.2	6.6
11	2.0	2.2	1.8	1.4	1.4	1.2	3.6	5.4	77	14	4.7	10
12	2.2	2.3	1.8	1.4	1.5	1.7	4.0	5.4	72	21	6.5	8.1
13	2.8	3.1	1.8	1.4	1.6	1.7	3.9	5.1	63	23	10	6.9
14	2.8	2.8	1.8	1.4	1.6	1.9	3.5	4.8	56	19	9.3	7.0
15	3.5	2.4	1.9	1.4	1.6	1.8	4.4	5.4	49	15	8.8	5.7
16	3.2	2.0	1.9	1.5	1.6	1.6	6.4	5.7	43	16	8.7	4.8
17	3.1	1.9	1.8	1.6	1.6	1.5	6.3	6.8	40	17	7.1	4.2
18	3.4	1.8	1.7	1.5	1.6	1.4	6.8	6.4	39	16	5.6	3.3
19	3.3	1.8	1.8	1.4	1.6	1.6	8.0	6.4	36	14	4.9	3.0
20	3.0	1.8	1.7	1.0	1.6	1.8	7.2	8.0	35	12	4.2	3.0
21	2.9	1.9	1.6	1.2	1.6	2.0	6.9	11	35	11	4.3	3.6
22	2.9	1.9	1.7	1.4	1.6	1.9	5.9	11	34	9.4	4.4	3.5
23	2.5	1.9	1.9	1.5	1.6	1.9	5.5	10	32	6.5	3.6	2.9
24	2.2	2.0	1.6	1.4	1.8	2.0	6.9	11	30	6.2	2.2	3.1
25	2.6	2.1	1.8	1.5	1.8	2.0	7.8	12	27	8.7	1.8	3.1
26	2.3	1.8	1.9	1.5	1.6	1.8	9.8	14	24	10	1.2	3.7
27	2.5	1.7	1.7	1.5	1.4	1.8	11	18	23	11	1.2	2.5
28	2.2	2.0	1.7	1.5	1.6	1.8	11	24	26	7.9	1.0	2.2
29	2.4	2.0	1.5	1.4	---	1.8	12	30	23	6.4	1.2	2.2
30	2.3	2.0	1.4	1.4	---	1.8	14	30	19	5.5	1.4	2.2
31	2.3	---	1.7	1.4	---	1.8	---	31	---	5.3	2.6	---
TOTAL	70.8	64.6	55.8	44.5	43.2	52.3	166.9	421.4	1311	427.9	121.6	128.1
MEAN	2.28	2.15	1.80	1.44	1.54	1.69	5.56	13.6	43.7	13.8	3.92	4.27
MAX	3.5	3.1	2.0	1.6	1.8	2.0	14	31	77	25	10	10
MIN	1.2	1.7	1.4	1.0	1.3	1.2	1.8	4.8	19	5.3	1.0	2.0
AC-FT	140	128	111	88	86	104	331	836	2600	849	241	254

CAL YR 1980 TOTAL 3988.1 MEAN 10.9 MAX 77 MIN 1.2 AC-FT 7910
WTR YR 1981 TOTAL 2908.1 MEAN 7.97 MAX 77 MIN 1.0 AC-FT 5770

09067000 BEAVER CREEK AT AVON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1975 to current year.

INSTRUMENTATION.--Turbidity recorder since September 1974.

REMARKS.--Daily maximum and minimum turbidity data available in district office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
15...	1100	3.5	239	235	7.2	5.0	9.0	110	32	7.1
NOV										
24...	1315	2.7	300	289	8.0	.0	10.2	140	41	9.6
JAN										
15...	1200	2.1	255	335	7.3	.0	11.4	160	44	11
FEB										
24...	1300	1.7	290	310	8.4	.5	10.9	170	48	11
MAR										
31...	1300	2.1	325	338	7.4	3.0	11.1	160	47	10
MAY										
05...	1140	17	105	132	8.1	5.1	10.7	64	18	4.7
JUN										
02...	1000	32	95	96	8.3	5.0	9.8	37	10	2.8
30...	1430	19	80	25	6.9	14.0	7.6	38	11	2.6
AUG										
05...	1230	4.2	220	197	7.4	13.0	8.3	92	27	5.9

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT										
15...	2.7	.1	67	47	1.6	156	.21	1.5	.00	.000
NOV										
24...	2.3	.1	78	72	.2	186	.25	1.3	.05	.000
JAN										
15...	6.0	.2	88	79	1.1	205	.28	1.1	.00	--
FEB										
24...	5.0	.2	78	88	1.4	202	.27	.94	.16	.000
MAR										
31...	4.0	.1	76	84	1.4	206	.28	1.1	.20	.010
MAY										
05...	5.1	.3	54	21	.8	98	.13	4.5	.16	.010
JUN										
02...	1.9	.1	30	1.4	10	58	.08	5.0	.08	.660
30...	1.6	.1	33	1.9	.9	26	.04	1.3	.06	.100
AUG										
05...	2.1	.1	52	38	.5	118	.16	1.3	.00	.010

09069000 EAGLE RIVER AT GYPSUM, CO

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft (120 m) upstream from Gypsum Creek, about 520 ft (160 m) upstream from bridge on U.S. Highways 6 and 24, and about 550 ft (170 m) upstream from gaging station.

DRAINAGE AREA.--944 mi^2 (2,445 km^2), at gaging station.

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURE: April 1949 to current year.

REMARKS.--Records of discharge are given for Eagle River below Gypsum (station 09070000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,850 micromhos Aug. 6, 1949; minimum daily, 130 micromhos June 9, 10, 1976.
WATER TEMPERATURES: Maximum, 24°C Aug. 24, 1949; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,250 micromhos Nov. 19, 20; minimum daily, 140 micromhos June 9.
WATER TEMPERATURES: Maximum daily, 21.0°C Aug. 1-4, 6, 7; minimum daily, freezing point on many days during November to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 15...	1430	189	990	990	8.2	11.0	10.0	.40	--	--	--
JAN 15...	1530	170	1200	--	6.8	.0	11.7	1.0	--	--	--
MAY 05...	1430	755	276	262	8.2	11.3	9.4	.78	100	31	6.3
SEP 18...	1045	290	800	771	7.9	11.0	10.4	.63	270	84	15

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT 15...	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--
MAY 05...	9.9	.4	1.2	60	53	12	.1	6.5	157	320
SEP 18...	48	1.3	2.5	110	170	72	.1	7.7	466	365

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 15...	--	.00	.00	.54	.40	.54	.050	.050	--	--
JAN 15...	--	.49	.46	.55	.54	1.0	.120	.070	--	--
MAY 05...	.21	.15	.22	1.60	.56	1.8	.090	.050	140	40
SEP 18...	.63	.10	.09	2.30	.54	2.4	.040	.020	16	18

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT									
15...	1430	0	0	0	0	5	0	3	4
JAN									
15...	1530	1	1	0	0	12	0	4	2
MAY									
05...	1430	1	1	0	<1	2	0	5	3
SEP									
18...	1045	2	0	0	1	6	3	3	2

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT								
15...	1	0	.3	.2	0	1	20	30
JAN								
15...	0	0	.1	.0	1	1	40	20
MAY								
05...	8	3	.4	.1	0	0	70	20
SEP								
18...	5	2	.1	.1	0	0	40	17

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	900	950	1000	1000	1100	1000	900	---	200	340	625	750
2	900	950	1000	1050	1100	1000	900	260	180	---	625	700
3	900	1000	900	950	1100	---	900	280	180	320	650	750
4	900	1000	1000	1000	1100	---	900	---	180	325	625	750
5	825	1000	950	975	1100	950	850	250	180	400	650	800
6	900	1000	950	950	1100	950	800	---	180	440	750	800
7	880	1100	950	1100	1100	1000	800	---	180	440	750	800
8	875	950	1000	1100	1100	1000	800	340	150	440	700	750
9	900	1000	1000	1100	1000	1000	850	420	140	380	800	600
10	900	900	1100	1100	600	950	800	420	160	370	800	600
11	900	900	1100	1100	900	950	800	420	170	380	700	340
12	900	900	1200	1100	1100	900	700	420	180	380	700	400
13	900	950	1000	1100	1000	950	700	430	180	380	650	560
14	900	900	950	1100	1000	950	700	440	220	380	650	560
15	1200	1100	1000	1100	1000	950	600	440	280	400	625	580
16	1000	1000	1000	1000	1000	950	600	440	320	380	650	600
17	1000	1100	800	1100	1000	950	600	440	300	370	700	625
18	1000	1150	1000	1100	1000	950	600	440	300	380	700	550
19	1000	1250	1000	1050	950	950	500	420	320	390	700	600
20	975	1250	1000	1050	1000	900	475	420	280	380	700	725
21	825	1000	1000	1050	900	800	480	380	280	500	750	750
22	850	1200	1000	1150	950	900	470	400	300	500	750	750
23	900	1000	1000	1100	950	900	500	400	300	540	750	750
24	925	1000	1000	1100	950	900	520	400	300	560	750	775
25	925	1050	1000	1100	1000	900	500	380	320	560	750	750
26	900	1100	950	950	950	1000	440	340	320	---	775	750
27	900	1200	1000	1000	950	950	320	---	320	480	750	775
28	875	1050	900	1000	950	800	300	220	320	520	750	750
29	850	1000	1000	1000	---	800	300	---	300	560	800	775
30	850	1000	1000	1100	---	800	300	---	320	590	750	775
31	900	---	1000	1100	---	800	---	200	---	600	700	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.0	3.0	1.0	.0	6.0	9.0	---	12.0	17.0	21.0	19.0
2	14.0	7.0	3.0	1.0	.0	5.0	9.0	11.0	12.0	---	21.0	18.0
3	14.0	8.0	4.0	1.0	.0	---	10.0	9.0	12.0	17.0	21.0	18.0
4	14.0	9.0	4.0	1.0	.0	---	10.0	---	12.0	15.0	21.0	18.0
5	15.0	8.0	4.0	1.0	.0	7.0	10.0	10.0	12.0	19.0	20.0	18.0
6	15.0	7.0	4.0	1.0	.0	7.0	12.0	---	13.0	20.0	21.0	16.0
7	14.0	5.0	4.0	.0	.0	7.0	12.0	---	13.0	20.0	21.0	18.0
8	14.0	7.0	3.0	.0	.0	7.0	12.0	7.0	9.0	20.0	20.0	17.0
9	14.0	8.0	1.0	.0	.0	7.0	13.0	12.0	12.0	20.0	19.0	17.0
10	14.0	6.0	.0	.0	.0	8.0	13.0	12.0	13.0	20.0	19.0	16.0
11	14.0	7.0	.0	.0	.0	8.0	13.0	11.0	13.0	20.0	19.0	15.0
12	14.0	7.0	.0	.0	1.0	8.0	12.0	11.0	12.0	18.0	20.0	15.0
13	13.0	6.0	1.0	.0	2.0	8.0	12.0	13.0	12.0	18.0	19.0	16.0
14	11.0	5.0	1.0	.0	2.0	7.0	12.0	13.0	11.0	19.0	19.0	16.0
15	10.0	1.0	1.0	.0	3.0	8.0	12.0	12.0	11.0	20.0	19.0	17.0
16	8.0	1.0	.0	1.0	3.0	8.0	14.0	12.0	13.0	19.0	20.0	16.0
17	8.0	1.0	.0	.0	3.0	8.0	15.0	13.0	16.0	16.0	20.0	16.0
18	8.0	.0	.0	.0	5.0	8.0	10.0	13.0	16.0	20.0	20.0	17.0
19	8.0	.0	.0	1.0	6.0	8.0	10.0	13.0	16.0	20.0	20.0	16.0
20	9.0	.0	.0	1.0	5.0	6.0	11.0	13.0	16.0	18.0	20.0	16.0
21	9.0	2.0	1.0	.0	3.0	5.0	11.0	10.0	16.0	20.0	19.0	15.0
22	8.0	1.0	.0	.0	4.0	4.0	11.0	12.0	17.0	20.0	19.0	15.0
23	7.0	1.0	.0	.0	4.0	5.0	13.0	13.0	17.0	19.0	19.0	15.0
24	3.0	1.0	1.0	.0	6.0	7.0	15.0	15.0	18.0	20.0	18.0	16.0
25	.0	1.0	2.0	.0	6.0	8.0	15.0	15.0	18.0	20.0	18.0	15.0
26	2.0	1.0	2.0	.0	3.0	11.0	16.0	13.0	18.0	---	18.0	15.0
27	3.0	.0	1.0	.0	6.0	9.0	13.0	---	18.0	19.0	18.0	15.0
28	4.0	2.0	.0	.0	6.0	7.0	15.0	14.0	16.0	20.0	18.0	15.0
29	5.0	4.0	.0	.0	---	8.0	15.0	---	18.0	20.0	18.0	15.0
30	6.0	3.0	.0	.0	---	7.0	15.0	---	18.0	20.0	19.0	15.0
31	7.0	---	1.0	.0	---	8.0	---	11.0	---	20.0	19.0	---

09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85 W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft (46 m) downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi^2 (2,445 km^2).

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m), from topographic map.

REMARKS.--Records good except for periods of no gage-height record, which are poor. Transmountain diversions above station (see elsewhere in this report). Transbasin diversions above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm^3) to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--35 years, 556 ft^3/s (15.75 m^3/s), 402,800 acre-ft/yr (497 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,580 ft^3/s (186 m^3/s) June 11, 1952, gage height, 9.15 ft (2.789 m); maximum gage height, 9.17 ft (2.795 m) June 29, 1957; minimum daily discharge, 110 ft^3/s (3.12 m^3/s) Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft^3/s (82.4 m^3/s) at 0700 June 9, gage height, 6.82 ft (2.079 m), no peak above base of 3,500 ft^3/s (99 m^3/s); minimum daily, 135 ft^3/s (3.82 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	252	219	194	170	155	142	643	1320	528	237	204
2	160	247	215	194	159	156	145	734	1410	627	227	195
3	150	243	213	188	165	158	156	1060	1600	684	208	184
4	150	244	211	189	187	161	153	1120	1750	560	198	181
5	150	240	217	187	185	153	141	800	1790	482	189	182
6	160	237	227	184	176	153	143	675	2010	431	175	192
7	160	233	218	168	174	151	145	570	2360	400	166	208
8	160	237	214	167	174	150	163	474	2400	387	160	240
9	150	239	207	174	169	149	155	417	2520	403	157	270
10	150	239	181	177	154	148	158	362	2440	520	160	300
11	150	234	182	171	135	149	177	361	2170	456	181	330
12	170	234	205	161	173	146	189	346	1940	453	198	300
13	190	270	202	150	186	147	195	331	1600	746	227	280
14	160	278	195	153	176	147	197	313	1310	626	259	370
15	190	249	210	174	171	147	207	303	957	512	223	370
16	207	201	199	189	166	145	225	314	775	463	255	330
17	203	191	197	189	164	149	230	336	743	551	247	280
18	202	191	198	181	163	147	261	355	751	657	209	270
19	215	203	202	189	164	145	296	339	651	547	195	250
20	236	198	200	183	169	147	310	359	748	454	185	242
21	261	209	196	179	165	147	288	416	801	396	177	242
22	256	206	197	176	160	145	271	393	810	348	188	243
23	249	209	198	189	160	146	235	375	705	321	200	227
24	234	213	190	186	161	146	247	386	630	295	194	209
25	222	213	195	178	161	143	313	413	600	283	195	213
26	243	206	197	173	162	144	397	512	568	319	188	212
27	265	194	199	175	157	151	518	650	665	415	181	210
28	252	213	197	176	154	149	510	948	839	358	177	199
29	233	217	196	171	---	143	525	1270	731	300	172	196
30	235	214	183	168	---	145	593	1220	559	274	177	194
31	250	---	189	169	---	142	---	1370	---	242	186	---
TOTAL	6173	6754	6249	5502	4660	4604	7685	18165	38153	14038	6091	7323
MEAN	199	225	202	177	166	149	256	586	1272	453	196	244
MAX	265	278	227	194	187	161	593	1370	2520	746	259	370
MIN	150	191	181	150	135	142	141	303	559	242	157	181
AC-FT	12240	13400	12390	10910	9240	9130	15240	36030	75680	27840	12080	14530

CAL YR 1980 TOTAL 198481 MEAN 542 MAX 3680 MIN 135 AC-FT 393700
WTR YR 1981 TOTAL 125397 MEAN 344 MAX 2520 MIN 135 AC-FT 248700

09070500 COLORADO RIVER NEAR DOTSERO, CO

LOCATION.--Lat 39°38'40", long 107°04'40", in sec.6, T.5 S., R.86 W., Eagle County, Hydrologic Unit 14010001, on left bank about 500 ft (150 m) south of U.S. Highways 6 and 24, 1.5 mi (2.4 km) west of Dotsero, and 1.5 mi (2.4 km) downstream from Eagle River.

DRAINAGE AREA.--4,394 mi^2 (11,380 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,130 ft (1,868 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres (275 km^2) above station, and return flow from irrigated areas.

COOPERATION.--Gage-height record collected in cooperation with the Public Service Co. of Colorado.

AVERAGE DISCHARGE.--41 years, 2,065 ft^3/s (58.48 m^3/s), 1,496,000 acre-ft/yr (1,840 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft^3/s (541 m^3/s) June 8, 1952, gage height, 11.56 ft (3.523 m); minimum daily, 350 ft^3/s (9.91 m^3/s) Jan. 5, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft^3/s (139 m^3/s) at 1000 June 9, gage height, 5.62 ft (1.713 m); minimum daily, 530 ft^3/s (15.0 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	1040	1000	871	620	671	658	1540	3300	1410	1220	1460
2	1110	1050	980	876	619	667	668	1620	3360	1480	1190	1360
3	1050	1050	960	874	640	678	695	2170	3520	1680	1160	1340
4	1040	1040	980	868	684	678	723	2590	3690	1670	1130	1340
5	1030	1050	942	871	678	664	676	2130	3790	1550	1250	1360
6	1040	1040	968	857	705	665	677	1830	3900	1430	1230	1350
7	1040	1030	959	800	678	674	677	1650	4250	1270	1190	1360
8	1030	1030	947	783	712	671	741	1480	4380	1160	1210	1420
9	1050	1020	919	789	654	669	759	1310	4480	1160	1230	1410
10	1020	1010	828	800	652	671	750	1200	4310	1370	1340	1360
11	1000	1010	795	827	530	666	877	1100	3860	1380	1380	1510
12	970	1010	890	808	617	656	986	1110	3480	1340	1420	1690
13	986	1090	916	780	715	658	1040	1350	2920	1610	1420	1560
14	994	1130	903	796	692	655	1080	1370	2450	1540	1490	1540
15	986	1040	927	786	681	651	1300	1360	2010	1370	1450	1460
16	1020	933	937	840	669	655	1360	1380	1750	1190	1440	1360
17	1030	850	953	771	657	665	1360	1460	1630	1220	1460	1310
18	1050	754	978	716	664	670	1410	1600	1590	1410	1410	1200
19	1080	776	930	711	649	654	1440	1610	1470	1400	1360	1130
20	1090	870	911	691	689	654	1470	1560	1510	1310	1320	1180
21	1120	883	906	681	654	672	1430	1530	1580	1180	1290	1180
22	1130	905	944	656	655	668	1350	1460	1590	1110	1320	1160
23	1100	955	941	670	656	658	1180	1340	1470	1070	1410	1190
24	1090	931	867	660	671	663	1150	1440	1330	1190	1410	1180
25	1050	990	920	700	677	669	1190	1470	1250	1220	1410	1220
26	1070	960	914	652	697	667	1300	1580	1200	1320	1400	1180
27	1110	1100	918	640	676	690	1450	1820	1320	1460	1390	1110
28	1090	920	912	650	670	704	1500	2270	1720	1460	1380	1090
29	1060	965	896	661	---	689	1500	2880	1860	1380	1360	1080
30	1030	1010	846	643	---	685	1510	3160	1620	1310	1380	1070
31	1050	---	858	620	---	662	---	3420	---	1250	1370	---
TOTAL	32636	29442	28545	23348	18561	20719	32907	53790	76590	41900	41420	39160
MEAN	1053	981	921	753	663	668	1097	1735	2553	1352	1336	1305
MAX	1130	1130	1000	876	715	704	1510	3420	4480	1680	1490	1690
MIN	970	754	795	620	530	651	658	1100	1200	1070	1130	1070
AC-FT	64730	58400	56620	46310	36820	41100	65270	106700	151900	83110	82160	77670

CAL YR 1980 TOTAL 783097 MEAN 2140 MAX 10100 MIN 754 AC-FT 1553000
WTR YR 1981 TOTAL 439018 MEAN 1203 MAX 4480 MIN 530 AC-FT 870800

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Partial record station May 1962 to February 1980, February 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1980 to current year.
WATER TEMPERATURE: February 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1980

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1410 micromhos Sept. 12, 1981, minimum, 168 micromhos June 12, 1980.
WATER TEMPERATURE: Maximum, 24.0°C Aug. 4, 1981; minimum; 0.0°C several days during winter period each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1410 micromhos Sept. 12; minimum, 179 micromhos June 9.
WATER TEMPERATURE: Maximum 24.0°C Aug. 4; minimum, 0.0°C several days during November and December.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	497	517	493	501	483	525	557	316	254	483	467	418
2	500	514	497	495	504	533	576	313	234	499	463	428
3	502	508	503	489	497	534	574	298	256	533	458	415
4	495	519	538	497	511	544	555	274	249	513	456	421
5	495	512	608	493	518	548	548	296	237	526	438	419
6	495	506	737	489	535	559	561	337	235	542	431	430
7	495	547	694	493	551	565	562	384	233	545	429	437
8	495	720	620	508	545	556	562	410	218	551	424	467
9	495	631	552	527	538	556	553	425	190	553	421	443
10	496	470	514	530	505	572	560	442	200	548	412	444
11	497	444	514	525	586	582	536	443	220	465	415	452
12	498	499	515	532	609	588	507	426	223	530	426	390
13	527	522	515	522	568	580	480	424	243	609	452	481
14	543	509	516	534	538	570	472	415	262	609	459	509
15	563	489	515	541	526	573	426	397	284	598	448	443
16	487	494	512	531	517	573	404	423	328	557	446	437
17	490	517	517	525	519	570	386	432	386	530	428	439
18	490	570	508	545	516	575	386	425	394	527	414	441
19	490	588	493	576	523	564	391	425	410	494	415	443
20	490	565	489	604	508	568	378	437	408	513	417	428
21	490	550	492	616	519	566	358	418	385	527	419	433
22	490	538	478	607	516	562	374	448	381	538	422	431
23	492	527	475	609	513	559	381	466	395	536	423	414
24	498	512	484	581	506	559	399	477	424	523	415	413
25	504	488	481	545	510	552	404	489	428	520	416	417
26	523	494	486	549	522	552	377	485	439	518	412	392
27	528	507	475	552	515	555	335	498	454	498	410	448
28	516	524	479	507	517	546	316	406	615	470	419	460
29	504	506	482	483	---	545	324	324	617	470	412	467
30	509	493	485	490	---	550	319	304	503	476	412	478
31	526	---	487	497	---	543	---	285	---	475	415	---

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	5.0	3.0	1.5	.0	1.5	1.0	---	---	5.0	2.5
2	---	---	5.0	3.0	2.0	.5	1.5	1.0	---	---	4.0	1.5
3	---	---	5.5	3.0	2.0	.5	1.5	1.0	---	---	4.0	2.0
4	---	---	6.5	4.5	2.5	.5	2.0	1.0	---	---	6.0	2.5
5	---	---	6.0	5.0	3.0	2.5	2.0	1.0	---	---	6.0	3.5
6	---	---	6.5	4.5	3.0	2.0	2.0	1.0	---	---	6.0	4.5
7	---	---	7.0	5.0	3.0	2.5	1.5	1.0	1.0	.5	5.5	4.0
8	---	---	7.0	5.5	2.5	2.0	1.5	1.0	1.5	.5	6.5	4.0
9	---	---	7.0	5.5	2.0	1.0	1.5	1.0	2.0	.5	7.0	4.0
10	12.0	---	6.0	5.0	1.0	.5	1.5	1.0	1.5	1.0	7.5	4.5
11	11.5	10.5	5.5	4.0	---	---	1.5	1.0	1.0	1.0	6.0	4.5
12	11.0	10.5	6.5	5.0	.5	.0	1.5	1.0	1.5	1.0	7.0	4.5
13	11.5	10.5	6.5	6.0	.5	.0	1.5	1.0	2.0	1.0	8.0	1.5
14	11.0	10.5	6.0	3.5	.5	.0	1.5	1.0	3.0	1.0	8.0	5.5
15	11.0	10.0	3.5	2.0	.5	.0	1.5	1.0	3.0	1.0	8.0	5.5
16	10.0	7.0	1.5	.0	.5	.0	1.5	1.0	3.5	1.0	8.0	5.5
17	---	---	.5	.0	.5	.0	1.5	1.0	3.5	1.0	7.0	5.5
18	---	---	.5	.0	.0	.0	2.0	1.0	4.0	1.5	8.0	1.5
19	---	---	.5	.0	.5	.0	1.5	.5	5.0	1.5	8.0	5.0
20	---	---	.5	.0	.5	.0	1.5	1.0	3.0	1.5	7.5	6.0
21	---	---	.5	.0	.5	.0	1.5	.5	4.0	1.0	7.0	5.5
22	---	---	.5	.0	1.0	.0	1.5	.5	4.0	1.0	8.5	5.5
23	8.5	---	.5	.0	1.0	.0	1.5	.5	4.5	1.0	8.0	2.0
24	7.5	5.5	1.0	.0	1.0	.0	1.5	.5	5.0	1.0	7.5	6.5
25	7.0	4.5	1.0	.0	1.5	.0	1.5	.5	4.5	1.0	8.5	1.5
26	7.0	5.0	.5	.0	2.0	.5	1.0	.5	3.0	1.5	10.0	7.0
27	7.5	5.5	.5	.0	1.5	.0	1.0	.5	4.5	1.0	9.5	7.5
28	6.5	3.5	.5	.0	---	---	1.5	.5	5.0	2.0	8.5	7.0
29	4.0	2.5	1.0	.0	---	---	---	---	---	---	8.0	5.0
30	4.5	2.0	1.0	.0	---	---	---	---	---	---	7.0	4.5
31	4.5	2.5	---	---	1.5	1.0	---	---	---	---	7.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	4.0	16.5	11.0	15.0	10.5	20.0	18.0	21.0	19.0	19.0	16.0
2	9.0	6.0	15.0	12.0	15.5	12.0	20.5	17.5	22.5	17.5	18.0	14.5
3	9.0	7.0	13.0	10.0	15.0	12.0	20.0	16.0	23.5	19.0	19.5	15.0
4	7.0	5.5	13.5	7.5	15.5	12.0	21.5	17.0	24.0	19.0	18.5	15.0
5	8.0	4.0	14.0	10.0	15.5	12.0	22.5	17.5	23.0	18.5	18.0	16.0
6	9.5	2.0	13.0	10.0	15.5	12.0	23.5	19.0	22.5	18.0	18.0	15.5
7	8.5	7.0	13.5	7.5	15.0	12.0	24.0	19.5	22.5	18.0	19.5	15.5
8	10.5	6.5	11.5	9.0	15.5	11.5	23.5	16.0	22.0	17.5	19.0	15.5
9	12.0	1.5	11.0	7.5	15.5	12.0	23.0	20.0	20.5	17.5	18.0	15.5
10	13.0	8.5	13.0	8.0	16.0	12.5	22.5	19.0	19.0	16.0	19.0	15.5
11	13.5	9.0	12.5	9.0	16.0	13.0	23.0	18.5	16.5	14.5	17.5	15.0
12	12.5	9.0	11.5	8.0	16.0	13.0	23.0	20.0	18.0	15.0	17.0	14.0
13	12.5	9.5	13.0	8.5	15.5	13.0	21.0	17.5	19.5	15.5	17.5	14.5
14	13.0	7.5	15.0	9.5	14.5	11.5	21.5	16.5	20.0	16.0	16.5	14.0
15	12.5	9.5	13.0	11.0	14.5	10.0	23.0	18.0	19.5	16.0	17.0	13.5
16	13.0	9.5	14.0	10.5	16.0	10.0	21.5	19.0	19.5	16.5	17.5	14.0
17	14.5	9.0	12.0	10.5	17.5	11.5	20.0	17.5	20.0	16.0	17.5	14.0
18	14.5	10.5	13.0	9.5	17.0	12.0	19.5	15.5	20.0	15.5	17.0	13.0
19	15.0	11.5	14.0	10.0	18.0	13.0	22.0	17.5	20.0	16.0	17.0	13.0
20	13.0	10.0	14.0	11.5	20.0	14.5	22.0	18.0	21.0	16.5	16.0	12.0
21	13.0	9.0	13.0	11.0	19.5	14.5	22.0	17.5	20.0	16.0	17.5	13.5
22	13.0	9.0	12.0	9.5	20.0	15.5	21.5	19.5	20.0	16.0	16.5	14.0
23	14.0	9.0	14.5	9.5	20.5	15.5	21.5	18.0	19.5	15.5	17.5	13.5
24	15.5	8.0	16.5	11.0	20.5	16.5	22.0	18.0	18.0	15.5	18.0	14.5
25	16.0	11.5	16.5	13.0	21.0	15.5	21.5	17.5	18.0	14.5	16.0	14.5
26	16.0	11.5	16.5	13.5	21.5	17.5	21.0	18.0	18.0	14.5	15.5	13.0
27	15.0	11.0	17.0	7.5	21.5	17.5	19.5	16.0	18.0	15.0	15.5	11.0
28	16.0	11.0	17.0	13.5	19.5	17.5	20.5	15.5	19.0	15.5	15.5	12.0
29	16.0	11.0	15.5	13.0	19.5	15.5	20.5	17.0	19.5	15.5	14.5	12.5
30	16.0	11.5	16.0	11.5	21.5	16.0	21.5	17.0	19.0	15.5	15.5	12.0
31	---	---	14.5	13.0	---	---	22.5	18.0	19.5	15.5	---	---

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO
(Irrigation Network Station)

LOCATION.--Lat 39°34'12", long 107°13'34", Garfield County, Hydrologic Unit 14010001, at Shoshone power plant, 6 mi (10 km) upstream from Glenwood Springs, and 6.5 mi (10.5 km) upstream from Roaring Fork River.

DRAINAGE AREA.--4,560 mi² (11,810 km²), approximately.

PERIOD OF RECORD.--October 1941 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: May 1949 to current year.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in Colorado River below Glenwood Springs (station 09085100). Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Additional chemical data supplied by U.S. Bureau of Reclamation (noted by an asterisk in the water year heading).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2460 micromhos July 12, 1981; minimum, 153 micromhos May 24, 1948.
WATER TEMPERATURES: Maximum, 25.5°C July 8, 1981; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2460 micromhos July 12; minimum, 245 micromhos June 10.
WATER TEMPERATURES: Maximum 25.5°C July 8; minimum, 0.0°C many days during winter months.

WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 15...	1545	--	605	605	7.8	10.0	8.5	.40	--	--
JAN 16...	1130	885	520	--	7.4	1.0	11.4	.51	--	--
MAY 06...	1400	1770	429	421	7.9	11.0	8.1	.68	130	37
SEP 16...	1530	1300	600	--	7.7	15.0	7.9	--	170	53

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 15...	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	--	--	--	--	--	--	--	--
MAY 06...	7.9	35	1.4	1.8	89	47	.2	8.4	249	.34
SEP 16...	10	27	.9	2.4	--	--	.0	8.6	--	--

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 15...	--	.00	.00	.74	.40	.74	.040	.030	--	--
JAN 16...	--	.11	.10	.92	.41	1.0	.020	.040	--	--
MAY 06...	1190	.23	.20	.46	.48	.69	.040	.050	90	30
SEP 16...	--	<.09	<.09	.97	.65	--	.020	.020	27	23

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT								
15...	0	0	0	0	5	0	3	2
JAN								
16...	2	1	6	2	4	0	5	2
MAY								
06...	2	2	0	2	5	2	6	2
SEP								
16...	2	2	0	<1	19	1	5	2

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT								
15...	2	0	.3	.1	0	0	10	30
JAN								
16...	5	0	--	.1	0	0	120	40
MAY								
06...	8	2	.2	.0	0	0	60	6
SEP								
16...	2	2	.2	.4	0	0	30	26

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	664	710	711	727	912	816	852	445	322	625	619	539
2	659	710	716	691	920	820	854	445	327	647	624	577
3	678	707	714	665	952	819	864	402	320	663	624	570
4	658	710	719	688	958	819	823	346	312	608	632	523
5	671	713	731	695	957	830	827	371	308	619	603	569
6	675	725	725	702	950	850	863	417	308	680	582	574
7	683	731	725	782	950	845	872	464	288	700	580	577
8	687	744	725	805	960	843	860	500	274	726	574	600
9	696	750	731	828	970	845	843	542	265	736	570	572
10	697	755	748	837	941	851	835	582	263	702	545	572
11	694	751	808	854	1000	847	800	624	279	650	535	568
12	707	704	806	869	1060	849	721	628	296	1350	537	488
13	708	734	776	898	968	865	673	581	335	1060	541	518
14	705	746	795	880	858	872	661	546	384	742	539	706
15	714	667	778	904	835	873	587	543	439	742	522	587
16	726	700	747	841	800	878	544	493	494	762	534	581
17	712	741	723	790	811	870	532	499	533	764	534	588
18	701	724	720	823	807	858	526	484	539	735	526	609
19	696	899	705	901	812	851	519	486	545	654	532	624
20	692	810	703	943	823	859	506	495	567	675	544	613
21	695	803	712	890	822	848	494	520	530	692	552	605
22	687	801	703	824	826	836	503	454	515	707	553	602
23	689	775	687	918	812	844	544	502	524	728	538	591
24	689	767	725	910	806	849	588	522	566	700	529	584
25	692	762	704	867	800	848	585	497	596	680	532	591
26	699	750	714	856	801	847	537	477	619	662	531	604
27	693	768	699	910	797	837	455	416	628	627	528	616
28	687	764	678	862	818	811	421	383	781	593	537	644
29	691	760	678	807	---	799	439	357	753	595	539	647
30	701	727	688	842	---	805	465	337	599	612	540	647
31	713	---	727	873	---	798	---	328	---	623	548	---

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	14.5	6.0	4.5	2.5	1.5	1.5	.0	2.0	1.5	5.5	4.5
2	16.0	14.0	6.0	5.0	2.5	1.5	1.5	.5	2.0	1.5	5.5	4.0
3	15.0	13.5	6.0	5.0	3.0	2.0	1.5	.5	2.0	1.5	5.0	4.5
4	14.5	13.0	7.0	6.0	3.0	2.5	1.5	.5	2.5	1.5	6.0	4.0
5	14.5	13.0	7.5	6.0	4.0	2.5	2.0	1.0	2.0	1.5	7.0	5.0
6	14.5	13.5	7.0	6.0	4.0	3.5	2.0	1.0	2.0	1.5	6.5	5.5
7	14.5	13.5	8.0	6.5	4.0	3.5	1.5	.0	2.0	1.5	6.0	4.0
8	14.5	13.5	8.0	6.5	4.0	3.5	1.0	.5	2.0	1.5	7.0	5.5
9	14.5	13.0	7.5	6.5	3.5	2.0	.5	.0	2.5	1.5	7.0	5.5
10	14.5	12.5	7.5	6.0	2.5	.5	1.0	.0	2.5	1.5	8.0	6.0
11	14.0	12.0	6.5	5.0	1.0	.5	1.0	.5	---	---	8.0	3.0
12	13.5	11.5	7.5	5.0	1.0	.5	1.0	.0	2.5	1.5	7.5	5.5
13	13.5	12.5	7.5	6.5	1.0	.5	.5	.0	3.0	1.5	8.0	6.0
14	13.5	12.0	6.5	5.5	1.0	.5	1.0	.0	3.5	1.5	8.5	6.5
15	12.5	10.0	6.0	3.5	1.0	.5	1.0	.0	4.5	2.0	8.5	6.5
16	10.0	8.0	4.0	1.5	1.0	.5	1.0	.0	4.5	2.0	8.5	7.0
17	8.5	7.5	2.0	.5	1.0	.5	1.0	.5	4.5	2.5	8.0	6.5
18	8.5	7.0	1.0	.5	1.5	.5	1.0	.0	4.5	2.5	8.0	6.5
19	8.5	7.0	1.0	.0	1.5	.5	1.0	.5	5.5	3.0	8.5	6.5
20	9.0	7.5	1.5	.5	1.5	.5	1.0	.0	5.5	3.5	8.5	7.5
21	9.0	7.5	1.5	.5	1.5	.5	2.0	.0	4.0	2.0	7.5	6.5
22	9.0	7.5	1.5	.5	2.5	1.0	2.0	1.5	4.5	2.0	8.5	6.5
23	8.5	7.0	2.0	1.0	2.5	1.5	2.0	1.5	5.0	2.5	9.0	7.5
24	7.5	5.5	2.0	1.5	2.5	1.0	2.0	1.5	5.0	3.0	8.5	7.5
25	6.0	4.5	2.0	1.0	2.5	1.0	2.5	1.5	5.5	3.0	9.0	6.5
26	6.0	4.5	2.0	1.0	3.0	1.5	2.5	1.5	5.0	3.0	10.5	8.0
27	6.0	5.5	1.5	.5	3.0	1.5	2.0	1.5	5.0	2.5	10.5	9.5
28	6.0	4.5	1.5	.5	2.5	1.5	2.5	2.0	5.5	3.5	10.0	8.5
29	5.5	4.0	2.0	.5	2.0	1.0	3.0	1.5	---	---	9.0	7.0
30	5.0	4.0	2.0	1.5	2.0	.5	3.0	1.0	---	---	8.0	6.0
31	5.5	4.5	---	---	1.5	.5	2.5	1.5	---	---	7.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	5.5	16.5	14.5	16.5	13.0	23.0	21.5	23.5	21.0	21.0	18.5
2	9.5	7.0	16.5	15.0	17.0	14.0	23.0	21.0	23.0	21.0	21.0	17.5
3	9.5	8.5	16.0	13.5	17.0	15.5	22.5	21.0	24.5	22.5	21.0	18.0
4	8.0	7.0	14.5	10.5	17.5	15.5	23.0	20.5	25.0	23.0	21.0	18.5
5	8.0	6.0	14.5	12.0	18.5	15.5	23.5	21.5	24.5	22.5	20.5	19.0
6	10.0	7.0	15.5	12.5	18.5	16.0	24.5	22.5	24.0	22.0	20.0	18.5
7	9.5	8.5	14.0	12.0	18.5	16.5	25.0	23.0	24.0	21.5	21.0	19.0
8	10.0	8.0	14.0	10.5	18.0	15.5	25.5	24.0	23.0	21.0	21.0	19.0
9	11.5	9.5	12.0	9.5	18.0	16.0	25.0	23.5	23.0	21.0	20.5	16.5
10	13.0	10.5	13.5	10.5	18.5	16.5	24.5	23.0	22.5	19.5	21.0	18.5
11	13.0	11.5	13.5	12.0	18.5	16.5	24.0	23.0	19.5	17.5	21.0	18.0
12	13.0	11.5	12.5	11.0	18.5	16.5	24.5	23.0	20.0	18.0	19.0	16.5
13	13.5	12.0	13.5	11.0	18.5	16.0	24.0	21.0	20.5	19.0	19.0	17.0
14	13.5	11.0	15.0	12.5	18.0	15.0	23.0	20.5	21.5	19.0	19.0	17.0
15	13.0	11.5	15.0	13.0	15.5	12.5	24.5	22.5	21.0	20.0	19.0	16.5
16	13.5	11.5	14.5	12.5	16.5	14.0	24.5	23.0	22.0	19.5	19.0	17.0
17	15.0	11.0	14.5	12.0	18.5	16.0	23.0	21.0	21.5	19.0	19.0	17.0
18	15.5	13.0	14.0	11.5	18.5	17.0	21.0	20.0	21.5	19.0	19.0	16.5
19	16.0	14.0	15.0	12.5	19.0	17.0	23.5	21.0	22.0	19.0	18.5	16.5
20	15.5	13.0	15.0	13.5	20.5	19.0	23.5	22.0	23.0	19.5	18.5	15.5
21	13.5	11.0	14.5	12.5	21.0	19.5	23.5	22.0	22.5	20.0	19.0	16.5
22	13.5	11.5	13.5	12.0	21.0	20.0	23.0	22.5	21.0	19.5	19.0	16.5
23	14.5	11.5	14.5	12.0	21.5	20.0	23.0	22.0	21.0	19.0	19.0	16.5
24	15.5	13.0	16.5	14.0	22.0	21.0	23.0	21.5	21.0	18.5	19.0	17.5
25	17.0	14.5	17.0	15.0	22.5	20.5	23.0	21.0	20.0	17.5	19.0	16.5
26	17.0	14.5	17.0	15.5	23.0	22.0	23.0	21.0	20.0	17.5	18.0	15.5
27	16.5	13.5	18.0	15.5	23.0	22.0	22.5	20.0	20.0	17.5	17.0	15.0
28	16.5	13.5	18.0	16.0	22.5	20.5	22.0	20.0	21.0	17.5	17.0	15.5
29	16.5	14.5	18.0	15.5	21.5	19.0	22.5	20.0	21.0	18.5	17.0	15.5
30	16.5	15.0	17.0	14.0	22.5	20.0	23.0	20.5	21.0	18.5	17.0	15.5
31	---	---	17.0	15.0	---	---	23.5	21.0	21.0	18.5	---	---

09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°43'00", long 107°18'35", in NE¼SW¼ sec.7, T.4 S., R.88 W., Garfield County, Hydrologic Unit 14010001, on left bank 0.5 mi (0.8 km) west of Grizzly Cow Camp and 14 mi (23 km) north of Glenwood Springs.

DRAINAGE AREA.--5.73 mi² (14.84 km²).

PERIOD OF RECORD.--September 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,450 ft (3,185 m), from topographic map. Prior to Oct. 19, 1978, at site 600 ft (183 m) upstream at datum 1.30 ft (0.396 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 11.1 ft³/s (0.314 m³/s) 8,040 acre-ft/yr (9.91 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 200 ft³/s (5.66 m³/s) June 15, 1978; maximum gage height, 6.41 ft (1.954 m) May 8, 1977 (backwater from ice); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 167 ft³/s (4.73 m³/s) at 2100 May 30, gage height, 4.52 ft (1.378 m), maximum gage height, 5.48 ft (1.670 m) at 1100 May 2, (backwater from ice); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.54	.25	.15	.04	.00	.00	30	136	4.6	1.4	1.7
2	1.0	.54	.25	.15	.04	.00	.00	60	133	7.4	1.4	1.4
3	1.0	.52	.25	.15	.04	.00	.00	98	129	6.2	1.3	1.6
4	1.0	.52	.25	.15	.04	.00	.00	80	122	4.8	1.3	1.4
5	1.0	.52	.25	.15	.04	.00	.00	51	114	4.2	.94	1.5
6	.94	.51	.25	.14	.03	.00	.00	34	103	4.1	1.1	2.1
7	1.0	.50	.25	.14	.03	.00	.00	29	94	3.7	1.0	1.8
8	1.1	.48	.24	.14	.03	.00	.00	25	80	3.5	1.0	2.4
9	1.2	.44	.24	.14	.02	.00	.00	22	65	3.5	1.0	2.4
10	1.1	.40	.23	.14	.02	.00	.00	19	50	3.7	1.5	3.3
11	1.0	.38	.23	.14	.02	.00	.00	18	40	3.3	1.6	2.8
12	1.0	.37	.22	.13	.02	.00	.00	16	30	3.7	1.6	2.8
13	1.2	.37	.20	.13	.01	.00	.00	14	25	3.9	1.5	3.3
14	1.3	.37	.17	.12	.01	.00	.00	15	20	3.2	1.6	3.5
15	1.3	.37	.16	.12	.00	.00	.00	28	18	2.8	1.6	3.5
16	1.4	.37	.16	.10	.00	.00	.00	28	15	2.7	1.7	3.2
17	1.6	.36	.16	.10	.00	.00	.13	23	13	2.6	1.6	3.0
18	1.8	.36	.16	.09	.00	.00	.22	21	11	3.7	1.4	3.2
19	1.8	.34	.16	.08	.00	.00	.24	26	10	2.7	1.5	2.8
20	1.5	.32	.16	.07	.00	.00	.29	29	9.5	1.9	1.5	2.7
21	1.3	.30	.15	.06	.00	.00	.24	23	8.7	2.0	1.4	3.2
22	1.3	.29	.15	.05	.00	.00	.24	18	7.9	1.8	1.4	3.0
23	.92	.27	.15	.05	.00	.00	.29	19	7.4	1.8	1.3	2.8
24	.80	.26	.15	.05	.00	.00	.48	26	6.4	1.8	1.4	2.8
25	.72	.25	.15	.05	.00	.00	1.3	34	6.0	1.9	1.7	3.0
26	.67	.25	.15	.05	.00	.00	1.9	48	5.1	1.8	1.5	2.7
27	.63	.25	.15	.05	.00	.00	1.5	86	5.8	1.8	1.3	2.6
28	.59	.25	.15	.04	.00	.00	2.2	130	9.8	1.6	1.4	2.6
29	.56	.25	.15	.04	---	.00	4.1	142	6.4	1.5	1.4	2.5
30	.54	.25	.15	.04	---	.00	12	140	4.6	1.4	1.9	2.5
31	.54	---	.15	.04	---	.00	---	149	---	1.4	1.9	---
TOTAL	32.81	11.20	5.89	3.05	.39	.00	25.13	1481	1285.6	95.0	44.14	78.1
MEAN	1.06	.37	.19	.098	.014	.000	.84	47.8	42.9	3.06	1.42	2.60
MAX	1.8	.54	.25	.15	.04	.00	12	149	136	7.4	1.9	3.5
MIN	.54	.25	.15	.04	.00	.00	.00	14	4.6	1.4	.94	1.4
AC-FT	65	22	12	6.0	.8	.00	50	2940	2550	188	88	155

CAL YR 1980 TOTAL 3399.61 MEAN 9.29 MAX 140 MIN .00 AC-FT 6740
WTR YR 1981 TOTAL 3062.31 MEAN 8.39 MAX 149 MIN .00 AC-FT 6070

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO APR. 14.

09073005 LINCOLN CREEK BELOW GRIZZLY RESERVOIR NEAR ASPEN, CO

LOCATION.--Lat 39°04'48", long 106°36'37", Pitkin County, Hydrologic Unit 14010004, on right bank 170 ft (52 m) below centerline of Grizzly Reservoir Dam and 13.6 mi (21.9 km) southeast of Aspen.

DRAINAGE AREA.--15.2 mi^2 (39.4 km^2).

PERIOD OF RECORD.--October 1980 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 10,150 ft (3,203 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41 ft^3/s (1.16 m^3/s) at 0930 Apr. 27, gage height, 2.14 ft (0.652 m); minimum daily, 0.25 ft^3/s (0.007 m^3/s) Sept. 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	1.1	1.1	1.3	1.2	1.3	1.8	8.0	1.1	.82	.82	.60
2	1.1	1.1	1.1	1.3	1.2	1.3	1.8	6.0	1.2	.82	.82	.60
3	1.2	1.1	1.1	1.3	1.2	1.3	2.0	4.0	1.2	.82	.82	.60
4	1.1	1.1	1.1	1.3	1.2	1.3	2.0	3.0	1.2	.82	.82	.60
5	1.1	1.1	1.2	1.3	1.2	1.3	2.0	2.0	1.3	.82	.82	.60
6	1.1	1.1	1.2	1.3	1.2	1.4	2.0	1.8	1.3	.82	.82	.60
7	1.1	1.1	1.2	1.4	1.2	1.4	2.0	1.4	1.3	.71	.82	.60
8	.94	1.1	1.2	1.3	1.2	1.4	2.2	1.1	1.4	.82	.82	.60
9	1.1	1.1	1.2	1.3	1.2	1.4	2.4	.90	1.6	.82	.94	.71
10	1.1	1.1	1.2	1.3	1.2	1.4	2.5	.70	1.6	.94	.94	.71
11	.94	1.1	1.2	1.4	1.2	1.4	2.5	.70	1.4	.94	.82	.71
12	1.1	1.2	1.3	1.3	1.2	1.4	2.4	.71	1.3	.94	.82	.71
13	1.2	1.2	1.3	1.3	1.2	1.4	2.2	.71	.94	.94	.71	.71
14	1.2	1.1	1.3	1.3	1.2	1.4	2.0	.71	.82	.94	.82	.71
15	1.4	1.1	1.3	1.3	1.2	1.4	1.8	.71	.82	.94	.82	.71
16	1.4	1.1	1.2	1.3	1.2	1.4	1.6	.71	.71	.94	.82	.60
17	1.3	1.1	1.2	1.2	1.2	1.4	1.6	.60	.82	.94	.82	.60
18	1.2	1.1	1.2	1.2	1.2	1.4	2.0	.60	.94	1.1	.82	.60
19	1.1	1.1	1.2	1.2	1.2	1.6	3.3	.60	.94	1.1	.82	.60
20	1.1	1.2	1.2	1.2	1.2	1.8	6.2	.60	.94	.94	.82	.60
21	1.1	1.2	1.2	1.2	1.2	2.0	9.4	.60	1.1	.94	.82	.60
22	1.1	1.1	1.2	1.2	1.3	2.0	10	.60	1.1	.94	.82	.60
23	1.0	1.1	1.3	1.2	1.3	1.8	11	.60	1.1	.82	.82	.60
24	1.0	1.1	1.3	1.2	1.3	1.8	14	.60	.94	.82	.82	.60
25	1.0	1.1	1.3	1.2	1.3	1.8	20	.60	.82	.82	.82	.48
26	1.1	1.1	1.3	1.2	1.3	2.0	30	.71	.82	.82	.82	.36
27	1.1	1.1	1.3	1.2	1.3	2.0	26	.82	.82	.82	.71	.25
28	1.1	1.1	1.3	1.2	1.3	2.0	17	1.1	.82	.82	.71	.25
29	1.0	1.1	1.3	1.2	---	2.0	16	1.1	.82	.82	.60	.25
30	1.1	1.1	1.3	1.2	---	2.0	12	1.1	.82	.82	.60	.25
31	1.1	---	1.3	1.2	---	1.8	---	1.1	---	.82	.60	---
TOTAL	34.42	33.4	38.1	39.0	34.3	49.3	211.7	44.48	31.99	27.19	24.67	17.01
MEAN	1.11	1.11	1.23	1.26	1.23	1.59	7.06	1.43	1.07	.88	.80	.57
MAX	1.4	1.2	1.3	1.4	1.3	2.0	30	8.0	1.6	1.1	.94	.71
MIN	.94	1.1	1.1	1.2	1.2	1.3	1.6	.60	.71	.71	.60	.25
AC-FT	68	66	76	77	68	98	420	88	63	54	49	34

WTR YR 1981 TOTAL 585.56 MEAN 1.60 MAX 30 MIN .25 AC-FT 1160

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO MAR. 16.

09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°08'28", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi (0.72 km) above Difficult Creek tributary and 4.25 mi (6.83 km) southeast of Aspen.

DRAINAGE AREA.--75.8 mi² (196 km²).

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,120 ft (2,475 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Transmountain diversion 11 mi (18 km) upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s (38.8 m³/s) June 19, 1980, gage height, 4.01 ft (1.222 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Jan. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 726 ft³/s (20.6 m³/s) at 2130 June 9, gage height, 3.34 ft (1.018 m); minimum daily, 8.8 ft³/s (0.25 m³/s) Mar. 22, 23

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	16	15	11	9.7	9.7	85	131	64	28	18
2	19	19	16	15	11	9.7	9.7	87	133	62	26	18
3	19	19	16	16	11	10	9.4	95	147	59	26	18
4	18	20	16	15	11	9.7	9.0	87	152	54	25	18
5	18	20	16	15	11	10	10	71	188	48	25	18
6	18	20	16	15	11	10	11	68	236	45	22	17
7	18	20	16	14	11	10	11	61	284	42	21	17
8	18	20	16	14	11	10	12	54	360	42	21	17
9	18	21	16	14	11	9.7	12	49	375	47	21	17
10	18	21	16	14	11	9.7	13	45	390	57	21	19
11	18	20	15	14	11	9.7	17	47	300	47	24	18
12	18	20	16	14	11	10	19	43	288	45	24	18
13	18	21	16	14	12	9.7	19	39	216	56	24	18
14	24	21	16	14	12	9.7	21	38	170	49	22	18
15	21	18	16	14	12	9.4	24	38	164	40	21	18
16	20	18	16	14	11	9.0	26	38	116	39	22	17
17	19	19	16	13	11	9.4	28	38	116	38	24	17
18	19	18	15	12	11	9.4	35	40	105	40	21	17
19	18	18	15	12	11	10	39	49	105	36	20	17
20	18	18	15	12	10	10	44	50	101	33	19	16
21	24	18	15	12	10	10	42	50	97	32	19	16
22	24	18	15	12	10	8.8	42	50	95	31	18	16
23	24	18	15	12	10	8.8	40	50	89	31	18	17
24	22	17	15	12	10	9.0	48	50	80	30	18	19
25	20	17	15	12	10	9.4	64	50	77	30	18	19
26	20	17	15	12	10	9.4	80	62	72	35	18	20
27	20	17	15	12	10	9.4	91	66	69	38	18	21
28	20	17	16	12	9.7	9.4	79	89	68	35	18	19
29	19	17	16	12	---	9.7	83	136	72	32	18	17
30	19	17	16	11	---	9.4	85	128	66	29	18	15
31	19	---	16	11	---	9.4	---	136	---	29	18	---
TOTAL	607	563	485	410	301.7	297.5	1032.8	1989	4862	1295	656	530
MEAN	19.6	18.8	15.6	13.2	10.8	9.60	34.4	64.2	162	41.8	21.2	17.7
MAX	24	21	16	16	12	10	91	136	390	64	28	21
MIN	18	17	15	11	9.7	8.8	9.0	[illegible]	66	29	18	15
AC-FT	1200	1120	962	813	598	590	2050	[illegible]	9640	2570	1300	1050

CAL YR 1980 TOTAL 31787.0 MEAN 86.8 MAX 1220 MIN 8.0 AC-FT 63050
WTR YR 1981 TOTAL 13029.0 MEAN 35.7 MAX 390 MIN 8.8 AC-FT 25840

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 to JAN. 8.

09073400 ROARING FORK RIVER NEAR ASPEN, CO

LOCATION.--Lat 39°10'48", long 106°48'05", Pitkin County, Hydrologic Unit 14010004, on right bank 25 ft (8 m) upstream from private bridge, 115 ft (35 m) upstream from Salvation ditch headgate, 1.0 mi (1.6 km) southeast of Aspen, and 2.0 mi (3.2 km) upstream from Hunter Creek.

DRAINAGE AREA.--108 mi² (280 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,014.01 ft (2,442.670 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1968, at site 85 ft (26 m) upstream at datum 1.16 ft (0.354 m) higher.

REMARKS.--Records good. Transmountain diversion 14 mi (23 km) upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 137 ft³/s (3.880 m³/s), 99,260 acre-ft/yr (122 hm³/yr), including diversion by Twin Lakes tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) July 1, 1965, gage height, 5.20 ft (1.585 m), site and datum then in use, from rating curve extended above 770 ft³/s (22 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 640 ft³/s (18.1 m³/s) at 0100 June 10, gage height, 3.03 ft (0.924 m); minimum daily, 19 ft³/s (0.54 m³/s) Feb. 19-23, 25-28, Mar. 1, 2, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	25	27	21	19	22	167	265	96	44	33
2	29	31	25	27	22	19	22	174	275	103	43	32
3	29	32	25	27	22	20	22	199	293	97	41	32
4	29	33	25	27	22	20	22	177	304	84	41	32
5	30	32	25	26	22	20	21	147	329	77	41	31
6	28	31	25	25	21	20	22	132	371	71	36	31
7	28	32	25	22	20	20	24	118	411	67	35	33
8	28	32	25	28	20	20	24	104	452	72	35	33
9	28	31	25	28	21	19	25	92	478	77	34	32
10	28	31	25	27	20	20	29	85	482	101	36	38
11	28	31	26	27	20	20	35	91	438	71	46	35
12	27	33	27	26	21	20	37	80	376	75	42	34
13	29	33	26	26	21	20	36	72	300	86	42	36
14	34	33	27	24	20	20	38	73	247	81	40	37
15	33	26	27	24	20	20	43	78	199	71	40	34
16	31	23	26	25	20	20	45	78	171	68	41	32
17	30	24	27	23	20	21	49	82	170	77	41	31
18	30	23	26	23	20	21	60	81	165	79	37	29
19	28	23	26	23	19	21	65	92	154	65	34	29
20	30	24	26	22	19	22	73	97	160	59	32	28
21	31	24	25	23	19	21	69	105	153	53	31	29
22	32	24	25	22	19	21	74	99	150	50	31	29
23	30	25	26	23	19	21	67	96	140	50	31	30
24	25	25	27	23	20	22	80	106	129	48	31	31
25	27	25	27	22	19	22	104	120	120	50	30	31
26	30	24	27	22	19	22	143	138	114	63	30	35
27	32	24	27	22	19	22	160	171	109	67	30	34
28	31	24	26	22	19	22	142	258	110	54	30	32
29	28	24	26	22	---	22	149	281	106	48	30	29
30	31	25	26	21	---	22	158	273	102	46	32	28
31	32	---	27	21	---	22	---	279	---	45	33	---
TOTAL	916	833	803	750	564	641	1860	4145	7273	2151	1120	960
MEAN	29.5	27.8	25.9	24.2	20.1	20.7	62.0	134	242	69.4	36.1	32.0
MAX	34	33	27	28	22	22	160	281	482	103	46	38
MIN	25	23	25	21	19	19	21	72	102	45	30	28
AC-FT	1820	1650	1590	1490	1120	1270	3690	8220	14430	4270	2220	1900

CAL YR 1980 TOTAL 40091 MEAN 110 MAX 1150 MIN 20 AC-FT 79520
WTR YR 1981 TOTAL 22016 MEAN 60.3 MAX 482 MIN 19 AC-FT 43670

09073720 HUNTER CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°12'28", long 106°40'41", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 95 ft (29 m) downstream from diversion point on Hunter Creek, and 8.3 mi (13.4 km) east of Aspen, and 0.9 mi (1.4 km) above confluence with Midway Creek.

PERIOD OF RECORD.--April 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,177.00 ft (3,101.950 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 92 ft³/s (2.61 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	39	55		
2								---	42	54		
3								---	55	48		
4								---	69	40		
5								---	79	30		
6								---	74	25		
7								---	68	24		
8								---	73	24		
9								---	88	20		
10								---	92	22		
11								---	77	19		
12								---	58	17		
13								---	48	12		
14								---	42	9.6		
15								---	37	6.8		
16								---	36	4.6		
17								---	33	3.7		
18								---	33	2.0		
19								---	31	2.4		
20								.00	28	1.4		
21								5.5	26	.64		
22								24	26	1.4		
23								41	25	.63		
24								52	23	.00		
25								31	62	---		
26								21	81	---		
27								26	74	---		
28								36	61	---		
29								33	52	---		
30								31	56	---		
31								41	---	---		
TOTAL								---	1588	---		
MEAN								---	52.9	---		
MAX								---	92	---		
MIN								---	23	---		
AC-FT								---	3150	---		

09073720 HUNTER CREEK FEEDER CONDUIT NEAR ASPEN, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	30	15	.45		
2							---	31	26	4.1		
3							---	18	32	.95		
4							---	11	50	.04		
5							---	4.4	53	.00		
6							---	.41	60	.00		
7							---	.00	40	.00		
8							---	.00	18	.00		
9							---	2.4	3.9	2.0		
10							---	.00	.00	1.2		
11							---	.00	48	1.0		
12							---	.00	61	.14		
13							---	.00	45	.07		
14							---	.00	23	.00		
15							---	.00	8.4	.00		
16							---	.00	10	.00		
17							---	.00	16	1.1		
18							---	.00	11	.00		
19							---	.00	16	---		
20							---	.00	23	---		
21							---	.00	25	---		
22							---	.00	19	---		
23							---	.00	14	---		
24							---	.00	14	---		
25							.00	.00	11	---		
26							5.2	.00	10	---		
27							11	3.7	4.8	---		
28							17	19	4.4	---		
29							25	21	3.3	---		
30							30	13	.66	---		
31							---	15	---	---		
TOTAL							---	168.91	665.46	---		
MEAN							---	5.45	22.2	---		
MAX							---	31	61	---		
MIN							---	.00	.00	---		
AC-FT							---	335	1320	---		

09073790 MIDWAY CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°11'25", long 106°41'04", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft (24 m) downstream from diversion point on Midway Creek, and 8.3 mi (13.4 km) east of Aspen, and 0.8 mi (1.3 km) upstream from mouth.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,186.20 ft (3,104.754 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 80 ft³/s (2.27 m³/s) June 12, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	34	44		
2								---	36	43		
3								---	46	37		
4								---	51	30		
5								---	54	25		
6								.00	52	21		
7								.18	51	21		
8								.79	50	20		
9								.00	46	18		
10								.00	32	18		
11								.00	18	16		
12								.00	11	14		
13								.00	8.4	12		
14								.00	7.3	9.5		
15								.00	7.0	7.5		
16								.00	6.8	6.0		
17								.00	6.5	5.3		
18								.00	6.2	4.4		
19								1.2	5.5	3.7		
20								4.0	4.8	2.8		
21								12	4.6	1.9		
22								23	4.6	1.8		
23								33	4.4	1.4		
24								31	4.2	.41		
25								18	39	.00		
26								16	59	---		
27								23	57	---		
28								29	51	---		
29								26	45	---		
30								28	46	---		
31								34	---	---		
TOTAL								---	848.3	---		
MEAN								---	28.3	---		
MAX								---	59	---		
MIN								---	4.2	---		
AC-FT								---	1680	---		

09073790 MIDWAY CREEK FEEDER CONDUIT NEAR ASPEN, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	17	50	13		
2							---	17	53	14		
3							---	20	57	11		
4							---	13	54	9.6		
5							---	8.9	30	6.8		
6							---	6.5	14	5.8		
7							---	6.2	1.6	4.6		
8							---	4.4	.09	5.3		
9							---	2.0	.00	10		
10							---	1.4	.00	10		
11							---	.86	48	9.8		
12							---	.09	80	13		
13							---	.41	69	11		
14							---	.74	46	7.8		
15							---	.74	33	5.3		
16							---	.09	33	65		
17							---	.00	37	9.8		
18							---	.24	31	6.8		
19							---	1.4	36	3.5		
20							---	2.6	40	2.0		
21							---	1.4	33	1.1		
22							---	.52	34	.52		
23							---	1.2	29	.16		
24							---	3.8	26	.00		
25							---	9.0	22	---		
26							.00	14	21	---		
27							3.5	23	18	---		
28							7.7	45	18	---		
29							11	45	17	---		
30							15	47	14	---		
31							---	49	---	---		
TOTAL							---	342.49	944.69	---		
MEAN							---	11.0	31.5	---		
MAX							---	49	80	---		
MIN							---	.00	.00	---		
AC-FT							---	679	1870	---		

09073890 NO NAME FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°10'58", long 106°43'10", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft (24 m) downstream from diversion point on No Name Creek, and 5.5 mi (8.8 km) southeast of Aspen, and 0.9 mi (1.4 km) upstream from mouth.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,165.50 ft (3,098.444 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 42 ft³/s (1.19 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	13	14		
2								---	13	14		
3								---	17	11		
4								---	19	7.8		
5								---	20	6.0		
6								---	19	4.6		
7								---	19	4.0		
8								---	19	3.1		
9								---	17	2.4		
10								---	12	2.2		
11								---	6.7	1.6		
12								---	4.1	1.4		
13								---	3.1	.74		
14								---	2.7	.52		
15								---	2.6	.09		
16								---	2.5	.09		
17								---	2.4	.09		
18								.00	2.3	.09		
19								.45	2.0	.09		
20								1.5	1.8	.09		
21								4.5	1.7	.09		
22								8.6	1.7	.09		
23								12	1.6	.09		
24								12	1.6	.05		
25								6.7	15	.00		
26								6.0	27	---		
27								8.6	24	---		
28								11	19	---		
29								9.7	16	---		
30								10	16	---		
31								13	---	---		
TOTAL								---	321.8	---		
MEAN								---	10.7	---		
MAX								---	27	---		
MIN								---	1.6	---		
AC-FT								---	638	---		

09073890 NO NAME FEEDER CONDUIT NEAR ASPEN, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	11	21	3.7		
2							---	13	15	6.5		
3							---	13	10	3.5		
4							---	10	4.0	1.9		
5							---	7.5	.41	.00		
6							---	5.5	.00	.00		
7							---	4.4	.00	.00		
8							---	3.0	.00	.00		
9							---	.00	.00	.12		
10							---	.00	.00	.17		
11							---	.00	25	.00		
12							---	.00	42	1.4		
13							---	.00	33	1.2		
14							---	.00	24	.09		
15							---	.00	18	.00		
16							---	.00	16	.43		
17							---	.00	15	.72		
18							---	.00	14	.13		
19							---	.08	13	.00		
20							---	.99	12	---		
21							---	.86	11	---		
22							---	.00	9.5	---		
23							---	.40	7.3	---		
24							---	1.8	6.2	---		
25							---	5.6	5.0	---		
26							.00	11	4.2	---		
27							.65	17	4.2	---		
28							2.2	34	5.0	---		
29							4.8	36	5.3	---		
30							9.4	32	4.4	---		
31							---	25	---	---		
TOTAL							---	232.13	324.51	---		
MEAN							---	7.49	10.8	---		
MAX							---	36	42	---		
MIN							---	.00	.00	---		
AC-FT							---	460	644	---		

09074000 HUNTER CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°12'21", long 106°47'49", Pitkin County, Hydrologic Unit 14010004, on right bank 280 ft (85 m) upstream from headgate of Red Mountain ditch, 1.5 mi (2.4 km) upstream from mouth, and 1.5 mi (2.4 km) northeast of Aspen.

DRAINAGE AREA.--41.1 mi^2 (106.4 km^2).

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,610 ft (2,624 m), from topographic map. Prior to Sept. 1, 1969, at site 220 ft (67 m) downstream at different datum.

REMARKS.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Several small diversions above station for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years (water years 1951-1956, 1970-1981), 48.4 ft^3/s (1.371 m^3/s), 35,070 acre-ft/yr (43.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft^3/s (28.6 m^3/s) June 13, 1953, gage height, 7.02 ft (2.140 m), site and datum then in use, from rating curve extended above 580 ft^3/s (16 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 642 ft^3/s (18.2 m^3/s) at 2200 June 9, gage height, 2.58 ft (0.786 m) , only peak above base of 450 ft^3/s (13 m^3/s); minimum daily, 1.8 ft^3/s (0.051 m^3/s) Dec. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.5	3.6	2.2	3.0	3.8	5.5	93	147	52	22	16
2	4.4	6.5	3.4	2.2	3.2	3.8	5.5	87	172	59	21	14
3	4.4	6.5	3.1	2.4	3.2	3.8	5.5	123	200	56	20	14
4	4.2	6.5	3.1	2.4	3.2	3.8	6.0	106	252	49	20	14
5	4.2	6.5	2.9	2.4	3.2	3.8	6.0	90	280	42	17	12
6	4.2	6.5	2.7	2.4	3.2	3.8	6.0	77	332	41	14	13
7	4.2	6.8	2.7	2.4	3.2	3.8	6.0	70	368	36	14	19
8	4.2	6.8	2.3	2.4	3.2	3.8	6.5	61	388	35	13	18
9	4.2	6.2	2.3	2.4	3.2	3.8	6.5	56	416	35	13	21
10	4.2	6.2	2.3	2.4	3.2	3.8	6.5	47	376	47	14	68
11	4.2	5.9	2.3	2.4	3.2	4.0	7.0	52	256	38	21	44
12	4.2	6.2	2.3	2.6	3.2	4.0	8.0	47	126	46	20	31
13	5.0	6.8	2.3	2.6	3.2	4.0	8.5	42	100	47	23	36
14	5.6	6.5	2.1	2.6	3.2	4.2	9.5	42	87	46	22	34
15	6.5	6.5	2.1	2.8	3.2	4.4	11	46	77	38	30	29
16	6.2	6.5	2.1	2.8	3.4	4.4	12	44	74	35	38	23
17	5.9	6.5	2.1	2.8	3.4	4.4	13	42	72	49	38	22
18	6.5	6.5	2.1	2.8	3.4	4.4	14	41	70	49	23	19
19	6.2	6.5	2.1	2.8	3.4	4.6	16	49	67	38	18	17
20	6.8	6.0	1.8	2.8	3.4	4.6	19	54	67	30	16	16
21	6.8	6.0	1.8	3.0	3.4	4.6	22	56	65	25	14	16
22	6.8	5.5	1.8	3.0	3.4	4.8	24	52	63	23	14	16
23	5.9	5.0	2.0	3.0	3.4	4.8	24	52	61	22	14	16
24	5.5	5.0	2.0	3.0	3.4	4.8	26	56	59	22	13	16
25	6.0	5.0	2.0	3.0	3.4	5.0	30	70	56	30	14	15
26	6.2	4.8	2.0	3.2	3.4	5.0	36	87	56	59	14	14
27	6.5	4.6	2.2	3.2	3.4	5.0	46	103	56	72	13	14
28	6.5	4.2	2.2	3.2	3.6	5.5	60	144	59	41	12	14
29	6.5	4.0	2.2	3.2	---	5.5	72	158	56	30	12	13
30	6.5	3.8	2.2	3.2	---	5.5	84	150	54	25	16	13
31	6.5	---	2.2	3.2	---	5.5	---	158	---	22	17	---
TOTAL	169.4	176.8	72.3	84.8	92.2	137.0	602.0	2355	4512	1239	570	627
MEAN	5.46	5.89	2.33	2.74	3.29	4.42	20.1	76.0	150	40.0	18.4	20.9
MAX	6.8	6.8	3.6	3.2	3.6	5.5	84	158	416	72	38	68
MIN	4.2	3.8	1.8	2.2	3.0	3.8	5.5	41	54	22	12	12
AC-FT	336	351	143	168	183	272	1190	4670	8950	2460	1130	1240

CAL YR 1980 TOTAL 11337.4 MEAN 31.0 MAX 376 MIN 1.8 AC-FT 22490
WTR YR 1981 TOTAL 10637.5 MEAN 29.1 MAX 416 MIN 1.8 AC-FT 21100

NOTE.--NO GAGE-HEIGHT RECORD Dec. 22 to Feb. 17, Feb. 27 to Apr. 28.

09074800 CASTLE CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°05'15", long 106°48'42", Pitkin County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Sandy Creek, and 7 mi (11 km) south of Aspen.

DRAINAGE AREA.--32.2 mi^2 (83.4 km^2).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,100 ft (2,774 m), from topographic map.

REMARKS.--Records good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 38.3 ft^3/s (1.085 m^3/s), 27,750 acre-ft/yr (34.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 428 ft^3/s (12.1 m^3/s) June 14, 1973, gage height, 3.75 ft (1.143 m); maximum gage height, 3.88 ft (1.183 m) June 23, 1970; minimum daily discharge, 6.5 ft^3/s (0.18 m^3/s) Mar. 15, 25, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 305 ft^3/s (8.64 m^3/s) at 2300 June 9, gage-height, 3.11 ft (0.948 m), only peak above base of 200 ft^3/s (5.7 m^3/s); minimum daily, 7.9 ft^3/s (0.22 m^3/s) Mar. 28-Apr. 4, 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	18	15	14	9.6	8.4	7.9	52	95	72	31	22
2	22	18	15	14	9.7	8.4	7.9	61	115	92	29	21
3	22	18	15	13	9.6	8.4	7.9	63	127	78	28	23
4	22	18	15	13	9.5	8.4	7.9	46	118	68	28	21
5	22	18	15	13	9.6	8.2	8.1	40	155	63	27	21
6	21	18	15	13	9.3	8.2	7.9	37	188	58	26	22
7	21	18	15	13	9.3	8.2	7.9	33	225	59	26	23
8	21	18	15	13	9.3	8.2	7.9	31	214	72	25	23
9	21	17	15	13	9.1	8.2	8.4	29	226	70	25	23
10	20	18	14	13	9.0	8.2	9.2	27	223	74	27	28
11	20	17	15	13	9.0	8.2	9.8	26	215	62	31	24
12	20	18	15	12	8.5	8.2	9.9	25	183	62	33	22
13	21	18	15	12	8.7	8.2	10	24	151	59	30	26
14	21	18	15	12	8.5	8.2	11	23	117	50	28	25
15	23	16	15	12	8.5	8.0	12	24	89	45	28	23
16	21	16	15	12	8.5	8.0	12	24	86	51	28	22
17	21	16	14	11	8.4	8.0	14	25	94	55	26	21
18	21	15	14	11	8.4	8.0	15	24	94	51	25	20
19	20	16	14	11	8.4	8.0	15	25	100	43	24	20
20	20	16	14	11	8.4	8.0	15	25	113	40	23	19
21	20	16	14	11	8.4	8.0	15	25	116	37	23	19
22	20	16	14	11	8.4	8.0	16	25	113	36	24	18
23	19	16	14	10	8.4	8.0	17	25	107	34	23	18
24	18	16	14	10	8.4	8.0	18	26	100	34	23	18
25	19	16	14	10	8.4	8.0	20	29	91	34	24	18
26	19	16	14	10	8.4	8.0	23	35	89	50	22	18
27	19	15	14	10	8.4	8.0	28	51	87	48	22	17
28	19	15	14	10	8.4	7.9	34	83	84	38	21	17
29	18	15	14	9.8	---	7.9	40	85	77	34	21	17
30	19	15	13	9.8	---	7.9	44	88	71	32	23	17
31	19	---	14	9.6	---	7.9	---	103	---	32	23	---
TOTAL	631	501	448	360.2	246.5	251.2	459.7	1239	3863	1633	797	626
MEAN	20.4	16.7	14.5	11.6	8.80	8.10	15.3	40.0	129	52.7	25.7	20.9
MAX	23	18	15	14	9.7	8.4	44	103	226	92	33	28
MIN	18	15	13	9.6	8.4	7.9	7.9	23	71	32	21	17
AC-FT	1250	994	889	714	489	498	912	2460	7660	3240	1580	1240

CAL YR 1980 TOTAL 15854.5 MEAN 43.3 MAX 282 MIN 7.4 AC-FT 31450
WTR YR 1981 TOTAL 11055.6 MEAN 30.3 MAX 226 MIN 7.9 AC-FT 21930

09075700 MAROON CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°07'25", long 106°54'17", Pitkin County, Hydrologic Unit 14010004, on left bank 0.3 mi (0.5 km) upstream from Silver Queen Forest Service campground, 1.2 mi (1.9 km) downstream from confluence of East and West Maroon Creeks, and 7.2 mi (11.6 km) southwest of Aspen.

DRAINAGE AREA.--35.4 mi^2 (91.7 km^2).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,720 ft (2,658 m), from topographic map.

REMARKS.--Records good except those for winter period and those for no gage-height record, which are poor. No diversion above station. Natural regulation by Maroon Lake. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 59.8 ft^3/s (1.694 m^3/s), 43,330 acre-ft/yr (53.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 836 ft^3/s (23.7 m^3/s) June 22, 1980, gage heght, 3.39 ft (1.046 m), from rating curve extended above 350 ft^3/s (9.9 m^3/s); maximum gage height, 4.53 ft (1.381 m) Feb. 3, 1972 (backwater from ice); minimum daily discharge, 9.0 ft^3/s (0.25 m^3/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430 ft^3/s (12.2 m^3/s) at 2400 June 10, gage height, 2.90 ft (0.884 m), only peak above base of 250 ft^3/s (7.1 m^3/s); minimum daily, 12 ft^3/s (0.34 m^3/s) Mar. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	32	24	21	15	13	13	41	111	108	55	40
2	47	32	24	21	15	13	13	48	126	119	54	39
3	46	31	24	21	15	13	13	61	131	100	53	39
4	47	31	24	21	15	13	13	51	146	97	52	39
5	47	31	24	21	15	13	13	48	226	91	51	40
6	46	30	24	20	15	13	13	48	205	88	50	40
7	46	30	24	20	14	13	13	53	215	87	49	39
8	44	30	24	20	14	13	13	58	261	88	49	39
9	43	29	24	20	14	13	13	58	282	86	49	39
10	43	29	24	20	14	13	14	56	348	87	48	39
11	42	29	23	20	14	13	14	56	318	84	46	39
12	42	27	23	19	14	13	14	54	234	83	46	39
13	42	28	23	19	13	13	14	51	209	81	47	41
14	41	28	23	19	13	13	14	49	199	80	46	43
15	40	27	22	18	14	13	15	48	184	80	46	43
16	40	27	22	18	13	13	15	47	156	79	46	43
17	39	27	22	17	13	13	15	46	143	83	45	40
18	38	26	22	17	13	13	16	44	135	80	44	39
19	38	25	22	17	13	13	17	42	129	76	43	39
20	37	25	22	17	13	13	17	42	136	74	42	38
21	36	25	22	17	13	13	17	42	139	73	42	39
22	36	25	22	17	13	13	18	43	140	71	41	40
23	36	25	23	16	13	13	19	41	140	69	41	40
24	35	25	22	15	13	13	19	41	142	65	41	39
25	35	25	22	15	13	13	20	41	143	65	40	39
26	34	25	22	15	13	13	21	41	144	69	40	38
27	35	26	21	15	13	13	24	46	149	71	40	37
28	34	25	21	15	13	13	26	67	144	66	40	36
29	33	25	21	15	---	12	29	75	131	62	40	36
30	32	25	21	15	---	12	34	88	116	59	40	36
31	32	---	21	15	---	13	---	114	---	57	40	---
TOTAL	1233	825	702	556	383	401	509	1640	5282	2478	1406	1177
MEAN	39.8	27.5	22.6	17.9	13.7	12.9	17.0	52.9	176	79.9	45.4	39.2
MAX	47	32	24	21	15	13	34	114	348	119	55	43
MIN	32	25	21	15	13	12	13	41	111	57	40	36
AC-FT	2450	1640	1390	1100	760	795	1010	3250	10480	4920	2790	2330

CAL YR 1980 TOTAL 27144 MEAN 74.2 MAX 482 MIN 13 AC-FT 53840
WTR YR 1981 TOTAL 16592 MEAN 45.5 MAX 348 MIN 12 AC-FT 32910

NOTE.--NO GAGE-HEIGHT RECORD Feb. 4 to Apr. 6.

09076520 OWL CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°13'25", long 106°52'45", in NE¼SE¼ sec.33, T.9 S., R.85 W., Pitkin County, Hydrologic Unit 14010004, on left bank 1.2 mi (1.9 km) upstream from mouth and 3.8 mi (6.1 km) northwest of Aspen.

DRAINAGE AREA.--6.60 mi^2 (17.09 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder with V-notch concrete control. Altitude of gage is 7,870 ft (2,399 m), from topographic map.

REMARKS.--Records poor. Several small diversions above station for irrigation of hay meadows. Water imported above station, at times, from West Willow Creek through Willow and Owl ditches. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 2.02 ft^3/s (0.057 m^3/s), 1,460 acre-ft/yr (1.80 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft^3/s (1.19 m^3/s) May 25, 1979, gage height, 1.82 ft (0.555 m); maximum gage height, 1.95 ft (0.594 m) May 23, 1980; no flow Feb. 9 to Mar. 6, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft^3/s (0.42 m^3/s) at 2200 May 3, gage height, 1.46 ft (0.445 m); minimum daily, 0.11 ft^3/s (0.003 m^3/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.23	.23	.23	.20	.32	.63	7.5	4.9	2.2	.40	.16
2	.19	.24	.23	.24	.20	.33	.65	7.9	2.8	2.0	.36	.15
3	.19	.23	.23	.23	.20	.34	.66	13	3.3	1.6	.30	.15
4	.19	.23	.23	.23	.20	.35	.70	13	1.7	1.4	.26	.15
5	.19	.23	.23	.23	.20	.36	.72	11	1.5	1.2	.26	.15
6	.21	.24	.23	.23	.20	.37	.76	9.8	1.4	1.2	.26	.18
7	.19	.23	.23	.24	.20	.38	.80	8.8	1.3	1.4	.26	.25
8	.19	.24	.23	.25	.20	.38	.90	7.7	1.6	1.5	.26	.27
9	.19	.25	.24	.24	.20	.38	.96	6.6	1.6	1.6	.26	.19
10	.18	.25	.24	.24	.20	.40	1.0	5.5	1.3	1.5	.28	.22
11	.19	.24	.23	.24	.20	.40	1.1	5.5	1.3	1.4	.30	.19
12	.21	.24	.24	.24	.20	.40	1.2	5.1	1.2	1.2	.28	.18
13	.32	.25	.24	.22	.20	.42	1.6	4.6	1.1	1.1	.26	.22
14	.27	.25	.24	.23	.20	.43	2.1	4.1	.95	1.3	.24	.21
15	.25	.24	.24	.23	.20	.48	2.2	4.1	1.2	1.8	.24	.21
16	.24	.23	.25	.23	.20	.49	2.4	4.1	1.3	1.7	.23	.18
17	.24	.24	.24	.23	.20	.46	2.6	4.4	1.4	1.4	.22	.18
18	.24	.24	.23	.22	.20	.46	2.9	4.4	1.7	1.1	.21	.18
19	.24	.25	.23	.21	.20	.47	3.4	4.1	1.9	1.0	.19	.18
20	.24	.25	.23	.21	.20	.48	4.6	3.7	2.4	.90	.14	.16
21	.23	.24	.23	.21	.22	.48	4.6	4.9	2.8	.84	.12	.15
22	.23	.23	.24	.21	.23	.50	4.6	4.9	2.6	.84	.12	.19
23	.22	.22	.24	.21	.24	.50	4.4	4.8	2.4	.84	.12	.21
24	.23	.22	.24	.20	.25	.50	5.7	4.6	2.2	1.0	.11	.19
25	.24	.23	.24	.20	.26	.52	6.0	4.9	2.0	1.2	.14	.21
26	.24	.23	.24	.20	.28	.53	6.8	5.7	2.0	1.5	.12	.21
27	.24	.23	.25	.20	.30	.54	7.2	6.0	2.0	1.2	.12	.22
28	.23	.22	.25	.20	.31	.55	7.7	7.5	1.8	.90	.12	.25
29	.23	.22	.25	.20	---	.56	7.5	9.1	1.6	.80	.12	.25
30	.24	.22	.24	.20	---	.58	7.7	8.8	1.6	.60	.16	.25
31	.23	---	.24	.20	---	.61	---	7.2	---	.50	.18	---
TOTAL	6.91	7.06	7.35	6.85	6.09	13.97	94.08	203.3	56.85	38.72	6.64	5.89
MEAN	.22	.24	.24	.22	.22	.45	3.14	6.56	1.90	1.25	.21	.20
MAX	.32.	.25	.25	.25	.31	.61	7.7	13	4.9	2.2	.40	.27
MIN	.18	.22	.23	.20	.20	.32	.63	3.7	.95	.50	.11	.15
AC-FT	14	14	15	14	12	28	187	403	113	77	13	12

CAL YR 1980 TOTAL 1047.88 MEAN 2.86 MAX 29 MIN .12 AC-FT 2080
WTR YR 1981 TOTAL 453.71 MEAN 1.24 MAX 13 MIN .11 AC-FT 900

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO FEB. 17, JULY 17 TO AUG. 18.

09077150 FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'42", long 106°31'47", Pitkin County, Hydrologic Unit 14010004, on right bank 210 ft (64 m) downstream from diversion point on Fryingpan River and 9.1 mi (14.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,955.91 ft (3,034.561 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Marten Creek and Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 269 ft³/s (7.62 m³/s) June 15, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	37	93	24	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	48	108	46	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	52	115	41	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	35	129	28	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	26	141	22	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	21	164	20	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	13	186	14	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	3.6	184	5.0	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	201	1.0	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	5.2	184	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	178	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	153	1.1	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	4.0	130	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	90	12	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	63	7.9	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	50	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	52	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	49	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	51	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	11	62	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	15	66	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	4.9	62	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	53	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	46	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	16	34	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	31	27	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	5.0	53	25	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	13	88	25	.00	.00	.00
29	.00	.00	.00	.00	---	.00	21	104	17	.00	.00	.00
30	.00	.00	.00	.00	---	.00	27	93	6.4	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	95	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	66.00	755.70	2744.4	222.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	2.20	24.4	91.5	7.16	.000	.000
MAX	.00	.00	.00	.00	.00	.00	27	104	201	46	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	6.4	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	131	1500	5440	440	.00	.00

CAL YR 1980 TOTAL 7444.10 MEAN 20.3 MAX 230 MIN .00 AC-FT 14770
WTR YR 1981 TOTAL 3788.10 MEAN 10.4 MAX 201 MIN .00 AC-FT 7510

09077200 FRYINGPAN RIVER NEAR IVANHOE LAKE, CO

LOCATION.--Lat 39°14'42", long 106°31'50", Pitkin County, Hydrologic Unit 14010004, on left bank 100 ft (30 m) downstream from diversion dam, 2.0 mi (3.2 km) southwest of Ivanhoe Lake, and 9.1 mi (14.6 km) southeast of Norrie.

DRAINAGE AREA.--18.7 mi² (48.4 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,945 ft (3,031 m), from topographic map. Prior to May 15, 1967, at site 200 ft (61 m) downstream at different datum. May 16 to Aug. 24, 1967, at site 1,060 ft (320 m) downstream at datum 9,895.01 ft (3,015.999 m) Aug. 25, 1967, to Sept. 30, 1973, at site 1,100 ft (340 m) downstream at datum 9,892.49 ft (3,015.231 m) (U.S. Bureau of Reclamation bench mark).

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077150 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey

AVERAGE DISCHARGE.--8 years (water years 1964-71), 34.2 ft³/s (0.969 m³/s), 24,780 acre-ft/yr (30.6 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 10 years (water years 1972-81), 10.6 ft³/s (0.300 m³/s), 7,680 acre-ft/yr (9.47 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft³/s (11.1 m³/s) June 22, 1965, gage height, 3.02 ft (0.920 m), site and datum then in use, from rating curve extended above 230 ft³/s (6.5 m³/s); maximum gage height, 4.62 ft (1.408 m) June 19, 1971; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 71 ft³/s (2.01 m³/s) at 0030 July 27, gage height, 1.79 ft (0.546 m); minimum daily, 4.5 ft³/s (0.13 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	9.5	6.0	6.5	6.0	6.0	7.5	14	14	33	27	16
2	9.0	9.5	6.0	6.5	5.5	6.5	8.0	15	14	14	25	15
3	9.0	9.5	6.5	6.5	5.5	6.5	8.5	14	14	14	24	16
4	9.0	9.5	7.0	6.5	5.5	6.5	8.0	14	14	18	23	15
5	8.7	9.7	7.0	6.5	5.5	6.0	7.5	13	14	22	21	14
6	8.7	9.4	7.0	6.0	5.5	6.0	8.0	14	14	22	19	15
7	8.7	9.0	6.5	6.0	5.0	6.0	9.0	17	14	27	18	16
8	8.7	7.8	6.5	6.0	5.5	6.0	9.0	24	14	39	18	16
9	8.7	7.4	6.5	6.0	6.0	5.5	9.0	26	14	47	18	15
10	8.7	7.1	6.0	6.0	6.0	6.0	10	21	14	50	20	17
11	8.7	7.1	6.0	6.0	4.5	6.0	11	23	13	41	21	21
12	8.7	7.4	6.5	6.0	5.0	6.0	12	21	14	44	22	18
13	9.7	7.8	6.5	5.5	5.5	6.0	12	16	14	44	24	17
14	9.4	7.1	6.5	5.5	5.5	6.0	12	20	18	27	22	17
15	9.7	6.0	6.0	5.5	6.0	6.0	13	20	24	25	26	16
16	9.0	5.5	6.5	5.5	6.0	6.0	13	19	26	37	27	15
17	9.5	5.5	6.5	6.0	6.0	6.0	13	18	27	48	23	15
18	9.5	5.5	6.5	6.5	6.0	5.5	15	19	27	43	20	14
19	9.0	6.0	6.5	6.0	6.0	6.0	16	23	27	36	18	14
20	9.5	6.0	6.5	6.0	6.0	7.0	16	18	27	31	18	14
21	9.5	6.0	6.5	6.0	5.5	7.0	15	13	27	28	18	15
22	9.5	6.0	6.5	6.5	5.5	6.5	14	20	27	27	18	14
23	9.0	6.0	7.0	6.5	5.5	7.5	12	27	27	25	18	14
24	8.5	6.0	6.5	6.5	6.0	7.5	14	29	31	24	18	14
25	9.0	6.0	6.5	6.5	6.0	7.0	16	23	40	29	17	14
26	9.5	5.5	6.5	6.0	6.0	8.0	18	14	48	48	17	14
27	9.5	5.0	6.5	6.5	6.0	8.5	19	14	50	50	17	13
28	9.0	5.0	6.5	6.5	6.0	8.0	14	14	50	37	16	13
29	9.0	5.5	6.5	7.0	---	8.0	14	14	48	31	16	13
30	9.5	5.5	6.5	6.5	---	8.0	14	14	52	29	18	13
31	9.5	---	6.5	6.0	---	8.0	---	14	---	28	17	---
TOTAL	282.4	208.8	201.0	191.5	159.0	205.5	367.5	565	757	1018	624	453
MEAN	9.11	6.96	6.48	6.18	5.68	6.63	12.3	18.2	25.2	32.8	20.1	15.1
MAX	9.7	9.7	7.0	7.0	6.0	8.5	19	29	52	50	27	21
MIN	8.5	5.0	6.0	5.5	4.5	5.5	7.5	13	13	14	16	13
AC-FT	560	414	399	380	315	408	729	1120	1500	2020	1240	899

CAL YR 1980 TOTAL 3807.3 MEAN 10.4 MAX 39 MIN 3.0 AC-FT 7550
WTR YR 1981 TOTAL 5032.7 MEAN 13.8 MAX 52 MIN 4.5 AC-FT 9980

NOTE.--NO GAGE HEIGHT RECORD NOV. 15 TO APR. 27.

09077250 LILY PAD CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'32", long 106°32'15", Pitkin County, Hydrologic Unit 14010004, on left bank at concrete diversion structure, 200 ft (61 m) downstream from diversion point on Lily Pad Creek, and 7.7 mi (12.4 km) southwest of Norrie.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 10,200.50 ft (3,109.112 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This a transmountain diversion from Lily Pad Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 26 ft³/s (0.74 m³/s) June 11, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	2.1	12	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	3.6	13	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	4.5	13	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	4.5	14	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	4.1	16	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	3.6	20	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	3.3	21	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	2.7	18	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	2.1	15	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	2.1	11	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.75	9.1	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	7.9	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	6.2	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	4.7	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	3.9	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	4.7	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	7.9	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	11	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	11	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	12	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	82.05	186.20	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	2.65	6.21	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	12	21	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	163	369	.00	.00	.00

CAL YR 1980 TOTAL 528.70 MEAN 1.44 MAX 26 MIN .00 AC-FT 1050
WTR YR 1981 TOTAL 268.25 MEAN .73 MAX 21 MIN .00 AC-FT 532

09077300 GRANITE CREEK FEEDER CONDUIT NEAR NORRIE, CO

LOCATION.--Lat 39°16'09", long 106°33'08", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete adit structure, 1.0 mi (1.6 km) through siphon from diversion point on Granite Creek, and 6.7 mi (10.8 km) southeast of Norrie, and 0.3 mi (0.5 km) above confluence with Fryingpan River.

PERIOD OF RECORD.--May to July 1981.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,989.70 ft (3,044.861 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s (0.79 m³/s) June 6, 7, 11, 12, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	19	3.6		
2								---	22	7.3		
3								---	23	7.3		
4								---	25	5.8		
5								.00	25	2.0		
6								1.9	28	.00		
7								3.6	28	.00		
8								3.1	27	.00		
9								2.8	26	.00		
10								2.6	25	.00		
11								2.4	28	.00		
12								2.1	28	.00		
13								1.9	23	.00		
14								2.0	18	1.5		
15								1.9	14	4.0		
16								1.9	13	4.0		
17								1.8	13	5.1		
18								2.0	12	4.2		
19								2.4	11	3.4		
20								2.6	12	1.3		
21								2.6	13	.00		
22								2.6	11	---		
23								2.6	10	---		
24								2.6	4.0	---		
25								3.3	.00	---		
26								5.2	.00	---		
27								8.3	.00	---		
28								16	.00	---		
29								20	.00	---		
30								18	.00	---		
31								19	---	---		
TOTAL								---	458.00	---		
MEAN								---	15.3	---		
MAX								---	28	---		
MIN								---	.00	---		
AC-FT								---	908	---		

09077605 IVANHOE CREEK FEEDER CANAL NEAR NAST, CO

LOCATION.--Lat 39°17'14", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank about 300 ft (91 m) downstream from diversion point on Ivanhoe Creek, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage, 10,004.00 ft (3,049.219 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 99 ft³/s (2.80 m³/s) June 27, 1979; no flow most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	33	42	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	36	46	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	40	46	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	31	58	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	23	53	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	15	57	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	12	62	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	3.8	60	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	61	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	48	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	37	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	38	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	5.4	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	5.7	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	10	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	3.4	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	9.7	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	48	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	16	50	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	30	41	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	41	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	46.00	456.60	725.40	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	1.53	14.7	24.2	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	30	50	62	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	91	906	1440	.00	.00	.00

CAL YR 1980 TOTAL 2108.51 MEAN 5.76 MAX 88 MIN .00 AC-FT 4180
WTR YR 1981 TOTAL 1228.00 MEAN 3.36 MAX 62 MIN .00 AC-FT 2440

09077610 IVANHOE CREEK NEAR NAST, CO

LOCATION.--Lat 39°17'13", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank 60 ft (18 m) upstream from culvert under Nast Tunnel, about 300 ft (91 m) downstream from diversion dam, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

DRAINAGE AREA.--9.43 mi^2 (24.42 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Transmountain diversions above station through Busk-Ivanhoe and Charles H. Boustead tunnels to Arkansas River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--6 years, 1.61 ft^3/s (0.046 m^3/s), 1,170 acre-ft/yr (1.44 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59 ft^3/s (1.67 m^3/s) May 22, 1981, gage height, 2.25 ft (0.686 m); maximum gage height, 2.44 ft (0.744 m) May 8, 1979 (backwater from ice); minimum daily discharge, 0.18 ft^3/s (0.005 m^3/s) Oct. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59 ft^3/s (1.67 m^3/s) at 1030 May 22, gage height, 2.25 ft (0.686 m); minimum daily, 0.30 ft^3/s (0.008 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	1.0	.70	.70	.50	.70	.80	2.1	2.2	2.2	2.6	2.6
2	.36	1.0	.70	.70	.50	.70	.90	2.1	2.3	3.1	2.3	1.8
3	.36	.95	.80	.70	.50	.80	.90	2.4	2.4	2.0	2.1	1.7
4	.36	.95	.80	.70	.50	.80	.80	2.1	3.0	1.5	2.0	1.5
5	.36	.90	.80	.70	.50	.70	.80	1.9	2.7	1.2	1.8	1.4
6	.32	1.0	.80	.70	.50	.70	.80	1.8	3.1	1.2	1.6	1.7
7	.32	1.0	.70	.60	.40	.70	1.0	6.0	3.1	1.2	1.5	1.8
8	.32	1.0	.70	.60	.50	.70	1.0	10	2.8	1.2	1.4	2.0
9	.32	.98	.70	.60	.50	.50	1.0	9.0	3.1	2.0	1.4	1.7
10	.32	.98	.60	.60	.50	.60	1.5	8.0	3.3	2.6	2.0	2.3
11	.36	1.0	.60	.60	.30	.60	2.0	7.0	3.0	2.3	2.2	3.2
12	.36	1.0	.70	.60	.50	.60	2.5	6.0	2.7	6.0	2.0	2.6
13	.50	1.1	.70	.50	.50	.60	3.0	5.5	2.4	7.0	2.7	2.2
14	.62	.90	.70	.50	.60	.60	3.5	6.2	2.3	5.0	2.6	2.1
15	.68	.60	.70	.50	.70	.70	4.0	6.7	2.8	4.3	3.1	1.7
16	.56	.60	.80	.60	.70	.70	4.5	6.5	3.1	5.0	3.0	1.5
17	.50	.60	.80	.60	.70	.70	5.0	5.3	3.0	5.6	2.7	1.4
18	.62	.60	.80	.60	.70	.60	6.0	7.4	2.8	5.6	2.0	1.3
19	.92	.70	.80	.60	.70	.70	8.0	9.0	7.1	5.0	1.6	1.2
20	1.0	.70	.80	.50	.70	.70	9.5	6.2	7.6	3.9	1.5	1.2
21	1.0	.70	.80	.50	.60	.70	9.0	2.0	7.0	3.5	1.5	1.2
22	.92	.70	.80	.50	.60	.70	8.5	6.3	5.8	3.1	1.8	1.2
23	.86	.70	.80	.60	.60	.80	8.0	8.8	4.0	3.0	1.6	1.2
24	.70	.70	.70	.60	.70	.80	11	10	2.8	2.7	1.5	1.2
25	.80	.70	.80	.60	.70	.80	15	1.0	2.4	3.4	1.5	1.2
26	.90	.60	.80	.50	.70	.80	18	2.3	2.2	4.7	1.4	1.3
27	.95	.50	.80	.50	.70	.90	22	2.6	2.2	5.6	1.8	1.1
28	.85	.50	.70	.50	.70	.90	26	2.8	2.6	4.0	1.6	1.1
29	.80	.60	.70	.50	---	.90	10	2.5	2.4	3.4	1.5	.97
30	1.0	.60	.70	.50	---	.90	2.0	2.1	2.2	3.0	3.0	1.1
31	1.1	---	.70	.40	---	.90	---	2.2	---	2.7	2.3	---
TOTAL	19.40	23.86	23.00	17.90	16.30	22.50	187.00	153.8	98.4	107.0	61.6	48.47
MEAN	.63	.80	.74	.58	.58	.73	6.23	4.96	3.28	3.45	1.99	1.62
MAX	1.1	1.1	.80	.70	.70	.90	26	10	7.6	7.0	3.1	3.2
MIN	.32	.50	.60	.40	.30	.50	.80	1.0	2.2	1.2	1.4	.97
AC-FT	38	47	46	36	32	45	371	305	195	212	122	96

CAL YR 1980 TOTAL 425.76 MEAN 1.16 MAX 9.2 MIN .22 AC-FT 844
WTR YR 1981 TOTAL 779.23 MEAN 2.13 MAX 26 MIN .30 AC-FT 1550

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 30.

09077750 SOUTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'22", Pitkin County, Hydrologic Unit 14010004, on right bank 110 ft (34 m) downstream from diversion point on South Fork Fryingpan River and 7.2 mi (11.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,997.80 ft (3,047.329 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from South Fork Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 188 ft³/s (5.32 m³/s) June 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	29	59	10	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	32	75	28	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	33	75	25	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	24	98	15	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	18	106	3.7	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	11	122	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	9.2	128	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	7.6	125	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	4.6	135	6.5	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	6.0	124	4.5	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	1.6	130	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	103	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.38	85	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	61	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	33	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	21	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	26	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	25	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	35	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	38	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	26	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	11	8.6	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	33	2.9	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	57	2.2	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	69	.64	.00	.00	.00
30	.00	.00	.00	.00	---	.00	13	60	.30	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	60	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	13.00	466.38	1731.64	92.70	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.43	15.0	57.7	2.99	.000	.000
MAX	.00	.00	.00	.00	.00	.00	13	69	135	28	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	26	925	3430	184	.00	.00

CAL YR 1980 TOTAL 4802.10 MEAN 13.1 MAX 148 MIN .00 AC-FT 9520
WTR YR 1981 TOTAL 2303.72 MEAN 6.31 MAX 135 MIN .00 AC-FT 4570

09077800 SOUTH FORK FRYINGPAN RIVER AT UPPER STATION, NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'24", Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft (91 m) downstream from diversion dam, 5.2 mi (8.4 km) upstream from mouth, and 7.2 mi (11.6 km) southeast of Norrie.

DRAINAGE AREA.--11.5 mi² (29.8 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,990 ft (3,045 m), from topographic map. Prior to Oct. 1, 1973, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077750 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1964-71), 21.6 ft³/s (0.612 m³/s), 15,650 acre-ft/yr (19.3 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 10 years (water years 1972-81), 6.66 ft³/s (0.189 m³/s), 4,820 acre-ft/yr (5.94 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 326 ft³/s (9.23 m³/s) June 24, 1971, gage height, 3.35 ft (1.021 m), site and datum then in use, from rating curve extended above 180 ft³/s (5.1 m³/s); maximum gage height, 4.40 ft (1.341 m) sometime during period Nov. 15, 1978 to May 21, 1979 (backwater from ice); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 39 ft³/s (1.10 m³/s) June 27; minimum daily, 1.5 ft³/s (0.042 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.0	3.5	3.5	3.0	3.5	4.0	8.6	6.4	18	12	8.9
2	4.9	5.0	3.5	3.5	2.5	3.5	4.5	8.3	7.0	5.9	12	8.3
3	4.7	5.0	4.0	3.5	2.5	4.0	4.5	8.3	7.3	5.6	12	9.6
4	4.7	5.0	4.0	3.5	2.5	4.0	4.0	8.3	7.6	12	12	8.6
5	4.7	5.0	4.0	3.5	2.5	3.5	4.0	8.3	7.9	21	11	7.6
6	4.9	5.0	4.0	3.5	2.5	3.5	4.0	8.3	7.9	24	9.9	7.6
7	4.9	5.0	3.5	3.0	2.0	3.5	4.5	8.3	7.9	22	9.2	8.3
8	4.9	5.0	3.5	3.0	2.5	3.5	4.5	7.9	7.6	21	9.6	8.3
9	4.9	4.5	3.5	3.0	2.5	2.5	4.5	8.3	10	24	9.2	10
10	4.9	4.5	3.0	3.0	2.5	3.0	5.0	8.6	8.6	29	11	16
11	4.9	4.5	3.0	3.0	1.5	3.0	5.5	11	8.3	25	13	15
12	4.9	4.5	3.5	3.0	2.0	3.0	6.0	11	7.3	24	13	12
13	4.9	5.0	3.5	2.5	2.0	3.0	6.0	8.6	6.7	25	19	12
14	4.9	4.5	3.5	2.5	2.0	3.0	6.0	9.6	6.4	23	15	12
15	4.9	3.5	3.5	2.5	2.5	3.5	6.5	9.6	16	19	18	11
16	4.5	3.5	4.0	3.0	3.0	3.5	6.5	8.9	24	20	18	9.9
17	5.0	3.0	4.0	3.0	3.0	3.5	7.0	8.6	25	25	15	9.2
18	5.0	3.0	4.0	3.0	3.0	3.0	7.5	8.6	25	22	12	8.6
19	4.5	3.5	4.0	3.0	3.0	3.5	8.0	9.9	25	19	11	8.3
20	5.0	3.5	4.0	2.5	3.5	3.5	8.5	11	25	16	10	7.9
21	5.0	3.5	4.0	2.5	3.0	3.5	8.0	10	25	14	9.9	7.9
22	5.0	3.5	4.0	2.5	3.0	3.5	7.5	9.9	25	13	10	7.6
23	4.5	3.5	4.0	3.0	3.0	4.0	6.5	9.6	26	12	10	7.3
24	4.0	3.5	3.5	3.0	3.5	4.0	8.0	11	31	12	9.6	7.3
25	4.5	3.5	3.5	3.0	3.5	4.0	11	18	33	16	9.6	7.6
26	5.0	3.0	3.5	3.0	3.5	4.0	15	14	37	31	8.6	7.9
27	5.0	2.5	3.5	3.0	3.5	4.5	17	7.0	39	30	8.3	7.3
28	4.5	2.5	3.5	3.5	3.5	4.5	21	7.6	38	20	7.9	6.7
29	4.5	3.0	3.5	3.5	---	4.5	25	7.9	36	16	7.6	6.4
30	5.0	3.0	3.5	3.0	---	4.5	18	7.3	33	14	11	6.4
31	5.0	---	3.5	3.0	---	4.5	---	6.4	---	13	9.9	---
TOTAL	149.2	119.0	113.5	94.0	77.0	112.5	248.0	288.7	569.9	591.5	354.3	271.5
MEAN	4.81	3.97	3.66	3.03	2.75	3.63	8.27	9.31	19.0	19.1	11.4	9.05
MAX	5.2	5.0	4.0	3.5	3.5	4.5	25	18	39	31	19	16
MIN	4.0	2.5	3.0	2.5	1.5	2.5	4.0	6.4	6.4	5.6	7.6	6.4
AC-FT	296	236	225	186	153	223	492	573	1130	1170	703	539

CAL YR 1980 TOTAL 2703.8 MEAN 7.39 MAX 40 MIN 2.5 AC-FT 5360
WTR YR 1981 TOTAL 2989.1 MEAN 8.19 MAX 39 MIN 1.5 AC-FT 5930

NOTE.--NO GAGE-HEIGHT REOCRD OCT. 16 TO APR. 29.

09077940 CHAPMAN GULCH FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'47", long 106°37'45", Pitkin County, Hydrologic Unit 14010004, on right bank 180 ft (55 m) downstream from diversion point on Chapman Gulch and 4.9 mi (7.9 km) south of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,032.60 ft (3,057.936 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Chapman Gulch and Sawyer Creek Feeder Canal in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 262 ft³/s (7.42 m³/s) June 12, 1981; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	78	133	26	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	84	151	52	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	93	161	40	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	63	187	30	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	45	166	26	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	31	177	23	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	23	151	20	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	15	128	24	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	8.5	126	35	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	7.0	120	37	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	5.9	180	29	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	2.3	262	34	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.82	226	35	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	1.8	142	26	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	3.1	81	20	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.25	70	21	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	80	35	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.42	70	26	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	3.1	78	19	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	9.4	97	11	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	9.8	104	3.2	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	3.4	84	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.88	66	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	4.2	62	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	24	50	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	42	50	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	8.8	66	35	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	22	140	39	.00	.00	.00
29	.00	.00	.00	.00	---	.00	39	167	31	.00	.00	.00
30	.00	.00	.00	.00	---	.00	62	137	23	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	148	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	131.80	1216.87	3330	572.20	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	4.39	39.3	111	18.5	.000	.000
MAX	.00	.00	.00	.00	.00	.00	62	167	262	52	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	261	2410	6610	1130	.00	.00

CAL YR 1980 TOTAL 7792.13 MEAN 21.3 MAX 239 MIN .00 AC-FT 15460
WTR YR 1981 TOTAL 5250.87 MEAN 14.4 MAX 262 MIN .00 AC-FT 10420

09077945 CHAPMAN GULCH NEAR NAST, CO

LOCATION.--Lat 39°15'51", long 106°37'54", Pitkin County, Hydrologic Unit 14010004, on left bank 700 ft (210 m) downstream from Chapman diversion tunnel, 2.5 mi (4.0 km) northwest of Nast, 3.3 mi (5.3 km) upstream from mouth, and 4.3 mi (6.9 km) south of Norrie.

DRAINAGE AREA.--5.96 mi^2 (15.44 km^2).

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR-CO-79-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,982.76 ft (3,042.745 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Transmountain diversion above station to Charles H. Boustead tunnel by Chapman Gulch feeder canal (station 09077940). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--9 years, 3.33 ft^3/s (0.094 m^3/s), 2,410 acre-ft/yr (2.97 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) June 11, 1981, gage height, 3.90 ft (1.189 m); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) at 2000 June 11, gage height, 3.90 ft (1.189 m); minimum daily, 1.9 ft^3/s (0.053 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.8	2.4	2.2	2.0	2.0	2.0	4.1	4.0	9.2	8.0	6.4
2	2.8	2.8	2.4	2.2	2.0	2.0	2.1	3.8	3.5	4.8	7.7	5.6
3	2.8	2.7	2.4	2.2	2.0	2.0	2.1	3.8	3.5	4.4	7.9	5.9
4	2.8	2.7	2.4	2.2	2.0	2.0	2.0	3.3	3.5	4.1	8.2	5.6
5	2.8	2.7	2.4	2.2	2.0	2.0	2.0	3.1	3.5	4.0	7.3	5.5
6	2.7	2.7	2.4	2.2	2.0	2.0	2.1	3.0	3.5	3.9	6.7	5.7
7	2.7	2.7	2.4	2.2	2.0	2.0	2.0	5.0	3.5	3.9	6.4	6.4
8	2.7	2.7	2.4	2.2	2.0	2.0	2.0	6.4	4.0	3.9	6.3	6.5
9	2.7	2.7	2.4	2.1	2.0	2.0	2.1	6.3	3.7	4.0	6.3	11
10	2.6	2.6	2.3	2.1	2.0	2.0	2.3	6.3	3.3	4.0	7.9	12
11	2.6	2.6	2.3	2.1	1.9	2.0	2.6	6.3	31	3.9	8.4	12
12	2.6	2.6	2.3	2.1	2.0	2.0	2.5	6.1	17	3.9	8.4	10
13	3.2	2.7	2.3	2.1	2.0	2.0	2.3	6.0	5.9	3.9	9.0	10
14	3.2	2.6	2.3	2.1	2.0	2.0	2.5	6.0	6.4	3.8	9.0	8.4
15	3.2	2.6	2.3	2.0	2.0	2.0	2.6	6.1	15	4.2	12	7.4
16	2.9	2.6	2.3	2.0	2.0	2.0	2.6	6.1	20	4.5	9.5	6.8
17	3.1	2.5	2.3	2.0	2.0	2.0	2.8	6.0	20	4.7	8.2	6.4
18	3.1	2.5	2.3	2.0	2.0	2.0	3.6	5.9	20	4.6	7.4	6.0
19	3.0	2.5	2.3	2.0	2.0	2.0	4.1	6.1	20	4.5	6.8	5.6
20	3.0	2.5	2.3	2.0	2.0	2.0	4.4	4.4	20	4.4	6.5	5.4
21	2.9	2.4	2.3	2.0	2.0	2.0	4.2	3.2	19	7.4	6.4	5.5
22	2.9	2.4	2.3	2.0	2.0	2.0	3.4	4.9	17	8.7	6.5	5.1
23	2.7	2.5	2.3	2.0	2.0	2.0	3.4	6.0	17	8.0	6.3	5.0
24	2.7	2.5	2.3	2.0	2.0	2.0	4.5	3.0	17	7.6	6.1	5.1
25	2.7	2.4	2.3	2.0	2.0	2.0	5.9	3.0	17	11	5.9	5.1
26	2.8	2.4	2.3	2.0	2.0	2.1	7.4	3.0	17	21	5.7	5.1
27	2.8	2.4	2.3	2.0	2.0	2.1	6.4	3.0	16	17	5.7	4.8
28	2.8	2.4	2.3	2.0	2.0	2.1	5.4	3.0	16	11	5.6	4.7
29	2.8	2.4	2.3	2.0	---	2.0	5.7	2.5	16	9.2	5.6	4.8
30	2.8	2.4	2.2	2.0	---	2.0	5.4	3.5	16	8.4	6.8	4.9
31	2.8	---	2.2	2.0	---	2.0	---	3.0	---	8.2	6.3	---
TOTAL	88.0	77.0	72.0	64.2	55.9	62.3	102.4	142.2	379.3	206.1	224.8	198.7
MEAN	2.84	2.57	2.32	2.07	2.00	2.01	3.41	4.59	12.6	6.65	7.25	6.62
MAX	3.2	2.8	2.4	2.2	2.0	2.1	7.4	6.4	31	21	12	12
MIN	2.6	2.4	2.2	2.0	1.9	2.0	2.0	2.5	3.3	3.8	5.6	4.7
AC-FT	175	153	143	127	111	124	203	282	752	409	446	394

CAL YR 1980 TOTAL 1210.60 MEAN 3.31 MAX 10 MIN .70 AC-FT 2400
WTR YR 1981 TOTAL 1672.90 MEAN 4.58 MAX 31 MIN 1.9 AC-FT 3320

NOTE.--NO GAGE-HEIGHT RECORD JAN. 31 TO MAR. 19.

09077960 SAWYER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'44", long 106°37'39", Pitkin County, Hydrologic Unit 14010004, on left bank 3,100 ft (940 m) downstream from diversion point on Sawyer Creek and 4.9 mi (7.9 km) south of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,047.00 ft (3,062.326 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Sawyer Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is diverted to Chapman Gulch and is rediverted by Chapman Gulch feeder canal. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s (1.05 m³/s) June 24, 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	3.2	14	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	3.9	17	3.6	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	5.7	21	5.3	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	4.8	25	4.7	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	3.8	26	3.9	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	3.2	30	3.6	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	2.8	26	3.2	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	1.4	30	4.2	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	2.0	33	4.3	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.6	32	3.9	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	1.7	31	3.7	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	1.6	26	3.8	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	1.4	22	3.7	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	1.3	7.5	3.2	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	1.5	6.6	2.8	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	1.4	3.9	3.3	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	1.3	.00	5.2	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.3	.00	4.3	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	1.5	.00	3.5	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	1.6	.00	1.4	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	1.6	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.54	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	2.9	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	4.6	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	9.6	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	1.2	15	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	2.2	14	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	14	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	3.40	110.74	351.00	71.60	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.11	3.57	11.7	2.31	.000	.000
MAX	.00	.00	.00	.00	.00	.00	2.2	15	33	5.3	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	6.7	220	696	142	.00	.00

CAL YR 1980 TOTAL 920.80 MEAN 2.52 MAX 35 MIN .00 AC-FT 1830
WTR YR 1981 TOTAL 536.74 MEAN 1.47 MAX 33 MIN .00 AC-FT 1060

09078000 FRYINGPAN RIVER AT NORRIE, CO

LOCATION.--Lat 39°19'51", long 106°39'27", in NE¼NE¼ sec. 28, T. 8 S., R. 83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 200 ft (61 m) west of county road at Norrie, 1.2 mi (1.9 km) upstream from North Fork, and 2.1 mi (3.4 km) downstream from Chapman Gulch.

DRAINAGE AREA.--90.6 mi^2 (234.7 km^2).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to current year. Prior to October 1960, published as Fryingpan Creek at Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,410 ft (2,563 m), from topographic map. February 1911 to March 1917, nonrecording gages at site 200 ft (61 m) upstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-16, 1947-71), 123 ft^3/s (3.483 m^3/s) 89,110 acre-ft/yr (110 hm^3/yr), prior to diversion through Charles H. Boustead tunnel; 10 years (water years 1972-81), 56.8 ft^3/s (1.609 m^3/s), 41,150 acre-ft/yr (50.7 hm^3/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft^3/s (50.4 m^3/s) June 30, 1957, gage height, 5.37 ft (1.637 m); maximum gage height, 5.55 ft (1.692 m) June 28, 1957; minimum daily discharge, 8.0 ft^3/s (0.23 m^3/s) Dec. 26, 1962, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft^3/s (9.69 m^3/s) at 0100 June 7, gage height, 3.15 ft (0.960 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	23	17	17	15	14	15	91	112	128	60	45
2	20	23	17	17	14	14	15	89	105	64	57	38
3	20	22	17	17	14	14	15	186	122	52	54	40
4	20	21	17	17	14	14	15	163	167	50	54	38
5	20	19	17	17	14	14	15	108	138	61	46	35
6	20	18	17	17	14	14	15	87	144	69	42	36
7	20	18	17	18	14	14	15	77	196	66	38	39
8	20	18	17	18	14	14	15	87	169	75	38	43
9	20	18	17	18	14	14	16	94	169	90	39	40
10	20	18	17	18	14	14	17	82	159	117	45	66
11	20	18	18	17	14	14	18	96	142	87	56	75
12	20	18	18	17	14	14	19	91	148	91	52	61
13	22	18	18	17	14	14	19	77	93	112	69	57
14	22	18	18	16	13	14	20	79	92	90	64	53
15	25	18	18	16	13	15	22	84	110	55	71	47
16	23	17	18	16	13	14	24	89	132	71	77	43
17	23	17	18	16	12	14	26	93	139	108	65	40
18	23	17	17	16	13	14	28	91	138	96	53	37
19	22	17	17	15	13	14	30	117	133	78	46	36
20	23	17	17	15	13	14	30	113	135	65	43	36
21	23	17	17	15	14	14	32	91	133	64	42	37
22	23	18	18	15	14	15	36	93	128	62	45	36
23	21	18	18	15	14	15	42	119	121	60	44	35
24	18	17	18	15	14	15	60	122	129	56	40	35
25	18	18	18	15	14	15	87	137	148	70	41	34
26	23	18	18	14	14	15	122	109	156	129	37	35
27	23	18	18	14	14	15	131	87	161	155	38	33
28	24	17	18	14	14	15	118	114	174	95	36	31
29	24	17	18	14	---	15	134	141	157	75	36	31
30	25	17	18	15	---	15	111	128	152	66	45	33
31	24	---	17	15	---	15	---	115	---	62	43	---
TOTAL	669	548	543	496	385	445	1262	3250	4202	2519	1516	1245
MEAN	21.6	18.3	17.5	16.0	13.8	14.4	42.1	105	140	81.3	48.9	41.5
MAX	25	23	18	18	15	15	134	186	196	155	77	75
MIN	18	17	17	14	12	14	15	77	92	50	36	31
AC-FT	1330	1090	1080	984	764	883	2500	6450	8330	5000	3010	2470

CAL YR 1980 TOTAL 19691 MEAN 53.8 MAX 318 MIN 11 AC-FT 39060
WTR YR 1981 TOTAL 17080 MEAN 46.8 MAX 196 MIN 12 AC-FT 33880

09078040 NORTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'40", long 106°32'16", Eagle County, Hydrologic Unit 14010004, on right bank at concrete adit structure, and 6.7 mi (10.8 km) northeast of Norrie, and 0.2 mi (0.3 km) above confluence with Mormon Creek.

PERIOD OF RECORD.--April to June 1981.

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,211.90 ft (3,112.587 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16 ft³/s (0.45 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	.51	8.6			
2							---	1.9	9.6			
3							---	2.4	10			
4							---	2.2	11			
5							---	1.5	13			
6							---	.74	15			
7							---	.24	14			
8							---	.48	14			
9							---	.00	13			
10							---	.00	14			
11							---	.00	16			
12							---	.00	11			
13							---	.00	11			
14							---	.00	9.4			
15							---	.00	5.8			
16							---	.00	28			
17							---	.00	.00			
18							---	.00	---			
19							---	.00	---			
20							---	.00	---			
21							---	.00	---			
22							---	.00	---			
23							---	.00	---			
24							---	.00	---			
25							---	.00	---			
26							---	.00	---			
27							---	.90	---			
28							---	4.5	---			
29							---	6.9	---			
30							.00	6.5	---			
31							---	8.4	---			
TOTAL							---	37.17	---			
MEAN							---	1.20	---			
MAX							---	8.4	---			
MIN							---	.00	---			
AC-FT							---	74	---			

09078050 MORMON CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'20", long 106°32'00", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.5 mi (0.8 km) upstream from unnamed tributary, 1.0 mi (1.6 km) upstream from Carter Creek, and 6.8 mi (10.9 km) northeast of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,090 ft (3,075 m) from topographic map.

REMARKS.--This is a transmountain diversion from Mormon Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 78 ft^3/s (2.21 m^3/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	9.4	35			
2							---	16	39			
3							---	19	39			
4							---	15	45			
5							---	8.4	50			
6							---	3.6	66			
7							---	6.8	71			
8							---	2.2	62			
9							---	.00	55			
10							---	.00	51			
11							---	.00	53			
12							---	.00	44			
13							---	.00	36			
14							---	.00	26			
15							---	.00	15			
16							---	.00	11			
17							---	.00	14			
18							---	.00	12			
19							---	.00	5.1			
20							---	2.9	.00			
21							---	3.0	---			
22							---	.00	---			
23							---	.00	---			
24							---	.00	---			
25							---	4.5	---			
26							---	14	---			
27							---	23	---			
28							---	35	---			
29							.00	35	---			
30							3.0	32	---			
31							---	35	---			
TOTAL							---	264.80	---			
MEAN							---	8.54	---			
MAX							---	35	---			
MIN							---	.00	---			
AC-FT							---	525	---			

09078060 CARTER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°22'00", long 106°32'38", Eagle County, Hydrologic Unit 14010004, on left bank at concrete structure, and 6.7 mi (10.8 km) northeast of Norrie, and 0.6 mi (1.0 km) above confluence with North Fork Fryingpan River.

PERIOD OF RECORD.--April to June 1981.

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,124.75 ft (3,086.024 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 56 ft^3/s (1.59 m^3/s) June 7, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	20	29			
2							---	20	33			
3							---	15	34			
4							---	10	42			
5							---	10	44			
6							---	10	55			
7							---	15	56			
8							---	20	54			
9							---	25	51			
10							---	25	55			
11							---	5.0	51			
12							---	.00	40			
13							---	.00	31			
14							---	.00	22			
15							---	.00	12			
16							---	.00	10			
17							---	.00	15			
18							---	.00	16			
19							---	.00	15			
20							---	.00	25			
21							---	.00	28			
22							---	.00	24			
23							---	.00	9.6			
24							---	.00	.00			
25							---	.00	---			
26							---	6.0	---			
27							.00	22	---			
28							5.0	31	---			
29							10	31	---			
30							15	28	---			
31							---	32	---			
TOTAL							---	325.00	---			
MEAN							---	10.5	---			
MAX							---	32	---			
MIN							---	.00	---			
AC-FT							---	645	---			

09078140 CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°20'12", long 106°32'31", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.8 mi (1.29 km) upstream from Middle Cunningham Creek, 6.2 mi (10.0 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,100 ft (3,078 m) from topographic map.

REMARKS.--This is a transmountain diversion from Cunningham Creek in the Roaring Fork basin through the Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 70 ft³/s (1.98 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	11	19			
2							---	12	20			
3							---	13	20			
4							---	9.9	24			
5							---	8.0	25			
6							---	5.1	29			
7							---	1.6	31			
8							---	.00	30			
9							---	.00	32			
10							---	.00	27			
11							---	.00	26			
12							---	.00	21			
13							---	.00	19			
14							---	.00	14			
15							---	.00	5.3			
16							---	.00	2.8			
17							---	.00	5.2			
18							---	.00	3.7			
19							---	.00	1.2			
20							---	1.4	.00			
21							---	1.4	---			
22							---	.00	---			
23							---	.00	---			
24							---	.00	---			
25							---	3.0	---			
26							---	9.0	---			
27							---	14	---			
28							.00	20	---			
29							3.9	20	---			
30							12	19	---			
31							---	19	---			
TOTAL							---	167.40	---			
MEAN							---	5.40	---			
MAX							---	20	---			
MIN							---	.00	---			
AC-FT							---	332	---			

09078150 MIDDLE CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°19'43", long 106°33'06", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.4 mi (0.6 km) upstream from Cunningham Creek, 5.7 mi (9.2 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,050 ft (3,063 m) from topographic map.

REMARKS.--This is a transmountain diversion from Middle Cunningham Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s (1.25 m³/s) June 9, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	5.2	20			
2							---	5.9	22			
3							---	6.8	24			
4							---	3.9	27			
5							---	.59	30			
6							---	.00	34			
7							---	.00	34			
8							---	.00	36			
9							---	.00	44			
10							---	.00	42			
11							---	.00	38			
12							---	.00	32			
13							---	.00	27			
14							---	.00	21			
15							---	.00	12			
16							---	.00	9.7			
17							---	.00	12			
18							---	.00	11			
19							---	.00	4.8			
20							---	.00	.00			
21							---	.00	---			
22							---	.00	---			
23							---	.00	---			
24							---	.00	---			
25							---	2.1	---			
26							---	5.0	---			
27							.00	10	---			
28							2.2	18	---			
29							4.9	20	---			
30							3.8	18	---			
31							---	19	---			
TOTAL							---	114.49	---			
MEAN							---	3.69	---			
MAX							---	20	---			
MIN							---	.00	---			
AC-FT							---	227	---			

09078500 NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO

LOCATION.--Lat 39°20'34", long 106°39'55", in SE¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on left bank 800 ft (240 m) upstream from bridge on county road, 0.4 mi (0.6 km) upstream from mouth, 0.5 mi (0.8 km) downstream from Last Chance Creek, and 1.3 mi (2.1 km) northwest of Norrie.

DRAINAGE AREA.--42.0 mi^2 (108.8 km^2).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to current year. Prior to October 1960, published as North Fork Fryingpan Creek near Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,330 ft (2,539 m), from topographic map. Feb. 18, 1911, to Mar. 31, 1917, nonrecording gage at site 10 ft (3 m) downstream at different datum. Oct. 1, 1947, to Sept. 30, 1949, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. One small diversion bypasses station for domestic use and irrigation of pasture. Low flow slightly regulated since 1968 by small recreation reservoir 2.0 mi (3.2 km) upstream. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1911-16, 1948-81), 49.9 ft^3/s (1.413 m^3/s), 36,150 acre-ft/yr (44.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) June 6, 1958, gage height, 4.98 ft (1.518 m), from rating curve extended above 700 ft^3/s (20 m^3/s); maximum gage height, 5.80 ft (1.768 m) May 21, 1948 (present datum); minimum daily discharge, 0.5 ft^3/s (0.014 m^3/s) Nov. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 300 ft^3/s (8.50 m^3/s) at 2230 June 9, gage height, 4.36 ft (1.329 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	7.0	3.5	3.0	2.5	2.5	5.5	74	104	64	17	10
2	2.0	7.0	3.5	3.0	2.0	2.5	6.0	74	112	75	15	8.7
3	1.9	7.0	4.0	3.0	2.0	3.0	6.5	115	128	67	14	8.1
4	1.9	7.0	4.0	3.0	2.0	3.0	6.0	99	144	54	13	7.7
5	1.9	6.5	4.0	3.0	2.0	2.5	6.0	80	135	46	12	6.9
6	1.9	7.0	3.5	2.5	2.0	2.5	6.5	69	153	42	10	8.3
7	1.9	7.0	3.5	2.5	2.0	3.0	7.5	57	176	37	9.3	9.3
8	1.8	6.5	3.5	2.5	2.0	3.0	7.5	52	175	43	8.7	14
9	1.7	5.7	3.5	2.5	2.5	3.0	8.0	48	213	42	8.5	14
10	1.7	5.7	2.5	2.5	2.0	3.5	10	45	173	47	10	23
11	1.7	5.7	2.5	2.5	1.0	4.0	16	47	140	38	15	26
12	1.7	5.9	3.0	2.0	1.5	4.0	20	43	109	59	13	21
13	2.9	7.1	3.0	2.0	2.0	4.0	20	40	91	103	17	17
14	4.0	7.1	3.0	2.0	2.0	4.0	20	39	74	65	15	14
15	5.7	4.0	3.0	2.0	2.5	4.0	26	42	63	49	13	12
16	5.5	2.5	3.5	2.5	2.5	4.0	28	43	72	48	17	10
17	5.5	2.5	3.5	2.5	2.5	4.5	30	44	71	59	15	9.5
18	6.3	2.5	3.5	2.5	2.5	4.0	39	46	69	61	12	8.9
19	5.5	3.0	3.5	2.5	2.5	4.0	48	57	70	47	10	7.9
20	6.9	3.0	3.0	2.0	2.5	4.5	49	68	98	38	8.9	7.5
21	7.3	3.0	3.0	2.0	2.5	5.0	43	68	96	31	8.5	7.5
22	7.5	3.0	3.0	2.0	2.0	4.5	34	60	91	27	8.9	7.3
23	5.9	3.0	3.5	2.5	2.0	5.5	28	59	82	24	8.9	6.9
24	4.0	3.5	3.0	2.5	2.5	5.5	39	64	86	21	7.7	6.9
25	5.0	3.0	3.5	2.5	3.0	5.0	55	80	79	22	7.1	6.9
26	6.0	3.0	3.5	2.0	3.0	5.5	71	85	73	34	6.3	7.1
27	6.5	2.5	3.5	2.0	2.5	6.0	80	87	70	41	5.9	6.9
28	5.5	2.5	3.5	2.5	2.5	5.5	75	112	86	28	6.5	7.3
29	5.0	3.0	3.0	2.5	---	6.0	76	115	68	23	6.1	6.9
30	7.0	3.0	3.0	2.5	---	6.0	75	102	58	20	8.7	7.3
31	7.5	---	3.0	2.0	---	5.5	---	107	---	18	10	---
TOTAL	131.6	139.2	102.5	75.0	62.5	129.5	941.5	2121	3159	1373	338.0	314.8
MEAN	4.25	4.64	3.31	2.42	2.23	4.18	31.4	68.4	105	44.3	10.9	10.5
MAX	7.5	7.1	4.0	3.0	3.0	6.0	80	115	213	103	17	26
MIN	1.7	2.5	2.5	2.0	1.0	2.5	5.5	39	58	18	5.9	6.9
AC-FT	261	276	203	149	124	257	1870	4210	6270	2720	670	624

CAL YR 1980 TOTAL 11177.0 MEAN 30.5 MAX 295 MIN 1.7 AC-FT 22170
WTR YR 1981 TOTAL 8887.6 MEAN 24.3 MAX 213 MIN 1.0 AC-FT 17630

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 15.

09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

LOCATION.--Lat 39°20'41", long 106°40'23", in NW¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 400 ft (120 m) upstream from private bridge, 400 ft (120 m) downstream from North Fork, 1.6 mi (2.6 km) southeast of Thomasville, and 1.7 mi (2.7 km) northwest of Norrie.

DRAINAGE AREA.--134 mi^2 (347 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,210 ft (2,502 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--6 years, 79.9 ft^3/s (2.264 m^3/s), 57,910 acre-ft/yr (71.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft^3/s (30.02 m^3/s) June 16, 1978, gage height, 3.94 ft (1.201 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Nov. 28, 1976, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564 ft^3/s (16.0 m^3/s) at 0100 June 7, gage height, 3.32 ft (1.012 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	31	20	22	17	19	20	179	223	182	80	56
2	26	31	20	22	16	20	22	176	227	144	75	48
3	26	30	22	23	17	20	24	308	253	122	74	48
4	26	30	23	23	17	18	21	266	313	104	72	47
5	25	29	23	23	17	18	21	193	280	108	61	43
6	24	30	22	22	17	19	23	160	299	110	54	45
7	25	30	21	21	16	19	26	139	366	101	48	49
8	23	29	21	21	17	17	26	139	344	117	47	60
9	23	28	21	21	19	18	28	139	383	128	47	54
10	24	27	19	21	18	18	38	120	324	160	56	91
11	24	27	19	20	13	18	50	139	270	122	74	101
12	24	28	20	20	16	18	56	128	253	156	67	84
13	28	31	20	19	18	18	54	115	197	219	86	77
14	30	29	20	19	18	18	54	113	172	160	78	70
15	37	19	20	19	19	19	60	117	179	108	80	63
16	33	18	22	20	19	19	63	122	200	122	91	53
17	34	19	23	20	19	20	66	128	204	166	82	49
18	35	20	23	21	20	18	90	128	197	156	67	45
19	30	22	23	20	20	19	110	156	189	130	58	44
20	34	21	22	19	20	21	113	172	223	108	53	43
21	34	21	22	19	18	22	97	156	223	99	51	45
22	34	20	23	19	17	21	91	144	208	93	54	42
23	30	19	24	20	17	23	77	169	193	90	54	41
24	23	22	22	21	18	23	104	176	204	82	49	41
25	28	20	23	20	19	22	150	208	212	93	49	38
26	32	18	23	18	19	23	200	197	212	156	45	38
27	33	17	22	17	18	23	219	182	212	186	45	38
28	28	17	23	18	18	22	204	232	244	128	44	36
29	26	20	22	19	---	21	215	257	208	101	43	35
30	32	20	22	18	---	22	197	232	193	91	56	36
31	33	---	22	17	---	21	---	223	---	84	57	---
TOTAL	890	723	672	622	497	617	2519	5313	7205	3926	1897	1560
MEAN	28.7	24.1	21.7	20.1	17.8	19.9	84.0	171	240	127	61.2	52.0
MAX	37	31	24	23	20	23	219	308	383	219	91	101
MIN	23	17	19	17	13	17	20	113	172	82	43	35
AC-FT	1770	1430	1330	1230	986	1220	5000	10540	14290	7790	3760	3090

CAL YR 1980 TOTAL 32047 MEAN 87.6 MAX 585 MIN 17 AC-FT 63570
WTR YR 1981 TOTAL 26441 MEAN 72.4 MAX 383 MIN 13 AC-FT 52450

NOTE.--NO GAGE-HEIGHT RECORD NOV. 30 TO MAR. 25.

09080190 RUEDI RESERVOIR NEAR BASALT, CO

LOCATION.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi (21 km) east of Basalt.

DRAINAGE AREA.--223 mi² (578 km²).

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in May 1968; dam completed July 16, 1968. Capacity, 102,300 acre-ft (126 hm³), 1969 survey, between elevations 7,540.00 ft (2,298.192 m), sill of auxiliary outlet, and 7,766.00 ft (2,367.077 m), crest of spillway. Dead storage below elevation 7,540.00 ft (2,298.192 m), 61 acre-ft (75,200 m³). Figures given are total contents.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,900 acre-ft (128 hm³) July 15, 1973, elevation, 7,767.56 ft (2,367.552 m); minimum after first filling, 48,000 acre-ft (59.2 hm³) May 13, 1971, elevation, 7,698.03 ft (2,346.360 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 103,000 acre-ft (127 hm³) July 1, elevation, 7,766.65 ft (2,367.275 m); minimum, 77,800 acre-ft (95.9 hm³) Mar. 4,5, elevation, 7,739.12 ft (2,358.884).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,758.23	94,800	-
Oct. 31.	7,754.15	91,000	-3,800
Nov. 30.	7,749.89	87,100	-3,900
Dec. 31.	7,745.07	82,900	-4,200
CAL YR 1980		-	+5,800
Jan. 31.	7,741.00	79,400	-3,500
Feb. 28.	7,739.23	77,900	-1,500
Mar. 31.	7,739.27	77,900	0
Apr. 30.	7,741.85	80,100	+2,200
May 31.	7,750.64	87,800	+7,700
June 30.	7,766.38	103,000	+15,200
July 31.	7,764.55	101,000	-2,000
Aug. 31.	7,763.47	99,900	-1,100
Sept. 30.	7,762.06	98,500	-1,400
WTR YR 1981			+3,700

ROARING FORK RIVER BASIN

09080300 ROCKY FORK CREEK NEAR MEREDITH, CO

LOCATION.--Lat 39°21'42", long 106°49'12", in NW¼NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, on right bank at upstream end of flume constructed to carry Rocky Fork Creek across spillway and auxiliary outlet of Ruedi Dam on Fryingpan River and 4.6 mi (7.4 km) west of Meredith.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

PERIOD OF RECORD.--September 1959 to July 1967 (discharge measurements only), October 1968 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 7,494.50 ft (2,284.324 m) (U.S. Bureau of Reclamation benchmark).

REMARKS.--Records good. No diversion or regulation above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--13 years (water years 1969-81), 9.35 ft³/s (0.265 m³/s), 6,770 acre-ft/yr (8.35 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101 ft³/s (2.86 m³/s) June 14, 1978, gage height, 1.74 ft (0.530 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Jan. 5-7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 82.1 ft³/s (2.33 m³/s) was measured June 7, 1962, and a discharge of 0.24 ft³/s (0.007 m³/s) was measured Apr. 26, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49 ft³/s (1.39 m³/s) at 2200 June 6, gage height, 1.31 ft (0.399 m), no peak above base of 50 ft³/s (1.4 m³/s); minimum daily, 2.7 ft³/s (0.076 m³/s) Feb. 10-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.0	3.2	3.0	2.8	3.2	3.0	26	34	10	6.2	4.7
2	4.0	4.0	3.0	3.0	2.8	3.2	3.5	28	34	12	5.7	5.0
3	4.0	4.0	3.0	3.0	2.8	3.4	3.5	30	37	11	5.5	4.3
4	4.0	4.0	3.0	3.0	2.8	3.4	3.5	24	41	10	5.2	4.0
5	4.0	4.0	3.0	3.0	2.8	3.4	3.5	20	40	10	5.0	4.0
6	3.8	4.0	3.0	3.0	2.8	3.4	3.5	17	42	9.8	5.0	3.8
7	3.8	4.0	3.0	3.0	2.8	3.4	4.0	15	43	9.1	4.7	4.0
8	3.8	3.8	3.0	3.0	2.8	3.4	4.0	13	43	8.8	4.5	3.8
9	3.8	4.0	3.0	3.0	2.8	3.4	4.0	12	41	8.4	4.5	4.0
10	3.8	3.8	3.0	3.0	2.7	3.4	4.5	11	38	8.8	4.7	4.3
11	3.8	3.8	3.0	3.0	2.7	3.6	5.0	11	35	9.1	4.7	4.0
12	3.6	3.8	3.0	3.0	2.7	3.6	5.0	11	32	9.1	5.0	4.3
13	3.4	3.8	3.0	3.0	2.7	3.6	5.0	10	29	8.8	5.2	4.0
14	3.4	3.8	3.0	3.0	2.7	3.6	5.0	10	26	8.1	5.7	4.3
15	4.0	3.8	3.0	3.0	2.7	3.6	5.0	9.8	23	8.1	6.0	4.5
16	4.0	3.8	3.0	3.0	2.7	3.6	5.0	10	21	8.4	5.5	4.3
17	4.0	3.8	3.0	3.0	2.7	3.0	5.5	10	19	8.1	5.2	4.3
18	4.0	3.8	3.0	3.0	2.7	2.8	7.0	11	18	8.4	5.5	4.3
19	4.0	3.8	3.0	3.0	2.7	2.8	9.0	10	16	8.4	5.5	4.0
20	4.0	3.8	3.0	3.0	2.7	3.0	9.5	10	16	8.4	5.2	4.3
21	4.0	3.6	3.0	3.0	2.7	3.0	9.0	11	14	8.1	5.0	4.3
22	4.0	3.6	3.0	3.0	2.7	3.0	8.0	12	13	7.4	5.0	4.0
23	4.0	3.6	3.0	3.0	2.7	3.0	7.0	12	12	7.1	4.7	4.0
24	4.0	3.6	3.0	2.8	2.7	3.0	9.0	12	12	7.4	4.5	4.0
25	4.0	3.6	3.0	2.8	2.7	3.0	12	13	10	7.4	4.7	3.8
26	4.0	3.6	3.0	2.8	2.8	3.5	15	17	10	7.1	4.5	4.0
27	4.0	3.6	3.0	2.8	3.2	3.5	18	21	9.8	6.8	4.5	4.5
28	4.0	3.6	3.0	2.8	3.2	3.5	19	27	11	7.4	4.5	4.0
29	4.0	3.6	3.0	2.8	---	3.5	21	33	11	7.4	4.3	4.3
30	4.0	3.6	3.0	2.8	---	3.5	24	34	9.8	7.1	4.3	4.0
31	4.0	---	3.0	2.8	---	3.0	---	35	---	6.5	4.3	---
TOTAL	121.5	113.6	93.2	91.4	77.6	102.3	240.0	525.8	740.6	262.5	154.8	125.1
MEAN	3.92	3.79	3.01	2.95	2.77	3.30	8.00	17.0	24.7	8.47	4.99	4.17
MAX	4.3	4.0	3.2	3.0	3.2	3.6	24	35	43	12	6.2	5.0
MIN	3.4	3.6	3.0	2.8	2.7	2.8	3.0	9.8	9.8	6.5	4.3	3.8
AC-FT	241	225	185	181	154	203	476	1040	1470	521	307	248

CAL YR 1980 TOTAL 3596.6 MEAN 9.83 MAX 71 MIN 2.8 AC-FT 7130
WTR YR 1981 TOTAL 2648.4 MEAN 7.26 MAX 43 MIN 2.7 AC-FT 5250

09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE¼SE¼ sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi (2.4 km) west of former site of Ruedi, and 12.5 mi (20.1 km) east of Basalt.

DRAINAGE AREA.--238 mi² (616 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,473.25 ft (2,277.847 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 7, 1970, at site 2.0 mi (3.2 km) downstream at different datum.

REMARKS.--Records good. Diversions for irrigation of hay meadows above station. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years (water years 1968-81), 173 ft³/s (4.899 m³/s), 125,300 acre-ft/yr (154 hm³/yr), subsequent to completion of Ruedi Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,690 ft³/s (76.2 m³/s) June 18, 1965, gage height, 5.16 ft (1.573 m), site and datum then in use; minimum daily, 16 ft³/s (0.45 m³/s) Feb. 2, 1968 (result of storage in Ruedi Reservoir); minimum daily prior to construction of Ruedi Reservoir, 28 ft³/s (0.79 m³/s) Mar. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft³/s (9.63 m³/s) July 2, gage height, 2.25 ft (0.686 m); minimum daily, 29 ft³/s (0.82 m³/s) March 5-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	108	108	108	80	51	40	103	145	149	120	84
2	110	108	108	108	80	51	40	126	147	254	120	92
3	110	108	108	108	80	51	40	129	147	329	120	90
4	110	108	108	108	80	40	40	129	149	309	120	84
5	110	108	108	108	65	29	40	129	152	300	120	85
6	110	108	108	108	53	29	40	129	152	295	108	85
7	108	108	108	84	53	29	40	129	157	295	90	85
8	108	108	108	79	53	29	39	129	159	295	89	86
9	108	108	108	79	53	29	40	129	162	295	89	87
10	108	108	108	79	52	29	45	129	162	295	89	89
11	108	108	108	80	52	29	51	129	157	295	94	100
12	108	108	108	80	52	29	51	129	154	295	110	105
13	108	108	108	80	52	29	63	129	152	295	120	105
14	108	108	108	80	52	30	80	129	147	295	122	106
15	108	108	108	80	52	30	89	127	145	295	124	120
16	108	108	108	80	52	30	89	126	142	295	124	135
17	108	108	108	80	52	30	96	126	140	276	124	113
18	108	108	108	80	52	30	110	126	135	238	122	84
19	108	108	108	80	52	30	110	126	135	238	113	84
20	108	108	108	80	52	31	120	126	133	238	99	84
21	108	108	108	80	52	31	137	126	133	180	89	84
22	108	108	108	80	52	31	122	126	131	140	85	84
23	108	108	108	80	52	31	120	126	131	126	85	84
24	108	108	108	80	52	31	120	126	131	122	81	84
25	108	108	108	80	52	35	120	126	131	120	87	84
26	108	108	108	80	52	40	120	126	131	120	87	84
27	108	108	108	80	51	40	82	127	131	120	89	84
28	108	108	108	80	51	40	70	133	131	120	84	84
29	108	108	108	80	---	40	70	140	131	120	76	84
30	108	108	108	80	---	40	71	142	133	120	75	82
31	108	---	108	80	---	40	---	145	---	120	75	---
TOTAL	3360	3240	3348	2649	1583	1064	2295	3977	4286	6984	3130	2741
MEAN	108	108	108	85.5	56.5	34.3	76.5	128	143	225	101	91.4
MAX	110	108	108	108	80	51	137	145	162	329	124	135
MIN	108	108	108	79	51	29	39	103	131	120	75	82
AC-FT	6660	6430	6640	5250	3140	2110	4550	7890	8500	13850	6210	5440

CAL YR 1980 TOTAL 50126 MEAN 137 MAX 207 MIN 67 AC-FT 99420
WTR YR 1981 TOTAL 38657 MEAN 106 MAX 329 MIN 29 AC-FT 76680

09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO

LOCATION.--Lat 39°13'56", long 107°13'36", in SE¼SW¼ sec.33, T.9 S., R.88 W., Pitkin County, Hydrologic Unit 14010004, on right bank 1.2 mi (1.9 km) upstream from Avalanche Creek and 3.6 mi (5.8 km) north of Redstone.

DRAINAGE AREA.--167 mi^2 (433 km^2).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,905 ft (2,015 m), from river-profile map.

REMARKS.--Records good. A few small diversions for irrigation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 283 ft^3/s (8.015 m^3/s), 205,000 acre-ft/yr (253 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,980 ft^3/s (113 m^3/s) July 1, 1957, gage height, 5.65 ft (1.722 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Dec. 5, 1955, Feb. 15, 1964, Jan. 2, Feb. 17, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) at 2300 June 9, gage height, 4.57 ft (1.393 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum daily, 29 ft^3/s (0.821 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	62	48	43	39	39	50	545	855	406	130	88
2	71	62	47	46	33	40	50	608	903	545	123	79
3	71	61	47	46	35	42	50	935	1130	412	118	74
4	71	61	47	45	39	43	48	647	1020	348	115	72
5	70	59	49	44	37	42	50	515	1120	315	108	72
6	67	59	51	44	39	44	54	439	1300	302	102	85
7	66	60	51	38	36	44	53	368	1460	291	99	108
8	65	60	48	39	37	42	55	329	1520	286	97	102
9	65	59	47	39	40	41	57	291	1600	283	96	104
10	64	58	39	40	36	40	69	262	1530	289	95	118
11	63	57	43	38	29	38	83	257	1490	250	106	92
12	64	60	45	38	44	38	88	235	1330	287	128	89
13	80	70	45	37	39	40	92	212	1130	254	119	127
14	72	67	44	38	40	42	103	202	881	225	107	129
15	91	58	47	41	40	46	128	223	618	209	110	106
16	81	51	48	43	40	46	136	223	533	227	111	92
17	80	47	48	44	39	46	162	216	577	256	100	85
18	81	49	48	42	39	46	201	204	608	253	95	80
19	76	52	47	41	39	46	261	218	600	213	91	75
20	76	52	46	39	41	48	248	246	710	192	88	73
21	75	51	46	38	38	46	199	255	759	177	85	73
22	73	52	47	38	38	46	193	237	738	168	88	70
23	70	54	47	40	38	46	202	239	655	158	83	68
24	64	53	45	41	40	48	250	257	606	153	80	72
25	65	51	47	40	40	48	301	292	559	160	84	70
26	66	49	46	39	40	48	353	338	553	203	80	69
27	69	45	46	40	39	48	358	450	540	198	78	66
28	64	52	46	40	40	48	368	749	555	164	76	65
29	60	50	45	40	---	48	428	871	462	148	75	64
30	62	49	40	38	---	48	488	883	410	137	89	62
31	63	---	45	39	---	50	---	994	---	133	94	---
TOTAL	2176	1670	1435	1258	1074	1377	5178	12740	26752	7642	3050	2529
MEAN	70.2	55.7	46.3	40.6	38.4	44.4	173	411	892	247	98.4	84.3
MAX	91	70	51	46	44	50	488	994	1600	545	130	129
MIN	60	45	39	37	29	38	48	202	410	133	75	62
AC-FT	4320	3310	2850	2500	2130	2730	10270	25270	53060	15160	6050	5020

CAL YR 1980 TOTAL 129210 MEAN 353 MAX 2490 MIN 28 AC-FT 256300
WTR YR 1981 TOTAL 66881 MEAN 183 MAX 1600 MIN 29 AC-FT 132700

ROARING FORK RIVER BASIN

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°32'37", long 107°19'44", in SW¼SE¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,100 ft (640 m) upstream from mouth.

DRAINAGE AREA.--1,451 mi² (3,758 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,720.73 ft (1,743.679 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft (240 m) downstream at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions above station for irrigation of about 35,000 acres (142 km²). Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Boustead tunnel since 1972 (see elsewhere in this report). Natural flow of stream affected by storage in Ruedi Reservoir on Fryingpan River (station 09080190) since May 1968.

AVERAGE DISCHARGE.--65 years (water years 1906-9, 1911-71), 1,368 ft³/s (38.74 m³/s), 991,100 acre-ft/yr (1,220 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 10 years (water years 1972-81), 1,105 ft³/s (31.29 m³/s), 800,600 acre-ft/yr (987 hm³/yr), subsequent to diversions through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s (538 m³/s) July 1, 1957, gage height, 8.65 ft (2.633 m); maximum gage height, 8.7 ft (2.65 m) June 14, 1921, from floodmarks; minimum discharge, 145 ft³/s (4.11 m³/s) Jan. 21, 1935, gage height, 0.65 ft (0.198 m); minimum daily, 179 ft³/s (5.07 m³/s) Jan. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,020 ft³/s (142 m³/s) at 0330 June 10, gage height, 5.02 ft (1.530 m); minimum daily, 312 ft³/s (8.84 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625	695	568	460	376	350	350	1220	2090	1280	512	464
2	617	688	560	464	358	350	355	1340	2110	1570	512	458
3	613	688	552	461	357	360	375	2110	2590	1550	480	453
4	613	680	538	451	377	365	370	1830	2450	1360	458	466
5	605	665	550	459	366	339	335	1390	2770	1290	452	452
6	604	658	574	453	354	344	365	1190	3210	1180	430	474
7	604	659	565	430	348	340	379	1040	3760	1110	415	518
8	595	664	551	414	344	337	409	929	4020	1040	400	602
9	593	658	543	413	362	327	407	874	4100	1030	400	568
10	592	648	503	414	370	325	425	801	4110	1110	410	612
11	589	643	508	404	312	327	464	771	3820	1040	415	621
12	598	645	524	392	388	331	494	740	3460	1220	436	612
13	653	699	518	391	360	332	508	696	2950	1140	474	657
14	660	693	507	389	359	332	530	670	2460	1050	469	718
15	720	660	515	400	369	325	589	648	1890	960	458	743
16	750	612	510	404	356	325	629	667	1590	932	469	695
17	794	598	506	408	355	345	659	669	1540	1040	469	665
18	795	600	510	391	354	335	722	669	1600	1060	452	612
19	780	607	506	391	355	330	823	642	1490	941	430	582
20	768	613	500	379	367	335	869	665	1690	869	430	575
21	769	600	498	379	356	340	818	735	1790	818	410	570
22	761	607	499	377	345	330	784	719	1880	727	405	562
23	748	627	517	390	339	330	734	724	1730	672	405	554
24	738	605	485	387	359	334	785	724	1620	612	410	554
25	731	590	508	384	361	332	894	773	1540	628	440	537
26	735	582	486	364	363	332	1060	872	1470	695	431	532
27	760	568	480	380	351	355	1100	1020	1520	727	431	529
28	731	582	480	380	350	355	1000	1620	1590	635	424	520
29	709	575	469	381	---	350	1060	2010	1430	575	418	506
30	703	568	452	375	---	355	1130	2060	1350	526	436	506
31	703	---	458	375	---	350	---	2280	---	519	450	---
TOTAL	21256	18977	15940	12540	10011	10517	19422	33098	69620	29906	13631	16917
MEAN	686	633	514	405	358	339	647	1068	2321	965	440	564
MAX	795	699	574	464	388	365	1130	2280	4110	1570	512	743
MIN	589	568	452	364	312	325	335	642	1350	519	400	452
AC-FT	42160	37640	31620	24870	19860	20860	38520	65650	138100	59320	27040	33550

CAL YR 1980 TOTAL 489063 MEAN 1336 MAX 7170 MIN 452 AC-FT 970100
WTR YR 1981 TOTAL 271835 MEAN 745 MAX 4110 MIN 312 AC-FT 539200

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1958 to August 1961, May 1962 to September 1967, January 1970 to May 1972, January 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to September 1967, January 1980 to current year.
WATER TEMPERATURE: May 1962 to May 1967, January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1160 micromhos July 12, 1981; minimum, 162 micromhos June 27, 1980.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 1981; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1160 micromhos July 12; minimum 204 micromhos June 10.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 3; minimum recorded, 0.0°C several days during November to February.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	732	641	636	650	649	682	684	313	284	440	693	787
2	725	640	645	650	644	686	686	306	277	406	700	778
3	731	637	638	647	658	690	682	272	244	413	720	781
4	724	646	636	648	654	681	684	286	260	434	737	778
5	723	653	646	646	662	652	712	317	262	453	743	789
6	722	654	623	641	667	693	716	343	244	464	765	783
7	722	654	629	648	677	689	723	374	228	473	788	762
8	722	653	631	666	679	691	708	405	222	480	803	721
9	722	653	635	673	668	668	712	432	220	480	795	744
10	725	654	646	657	662	685	685	463	219	476	782	716
11	727	652	647	647	616	687	630	485	222	491	768	708
12	725	652	636	627	681	687	657	505	240	531	755	714
13	706	634	635	640	674	684	602	534	261	526	748	692
14	696	649	637	630	675	687	575	562	289	504	740	649
15	675	672	630	614	667	687	520	554	338	528	745	633
16	663	677	626	639	668	687	547	520	372	545	734	647
17	656	680	624	671	668	682	492	521	379	528	728	652
18	653	677	622	606	667	678	465	524	374	515	736	675
19	652	672	623	641	660	693	420	539	389	532	749	692
20	653	668	626	561	651	704	387	534	362	553	752	692
21	652	670	627	567	579	701	400	505	350	570	765	692
22	648	660	628	604	546	709	416	518	342	593	785	695
23	661	655	619	650	558	719	429	516	362	626	787	693
24	674	660	628	646	618	725	419	517	376	645	785	696
25	675	645	630	643	660	707	387	501	388	665	776	701
26	666	646	634	655	696	713	352	471	402	634	789	707
27	650	640	637	643	663	693	333	436	398	587	792	702
28	645	638	639	639	674	688	334	362	397	617	798	700
29	655	640	641	631	---	694	328	317	414	651	808	698
30	655	640	648	636	---	694	321	304	425	674	800	690
31	646	---	651	640	---	684	---	282	---	685	819	---

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	9.0	7.5	3.5	---	---	3.0	.5	---	---	7.0	4.0
2	14.0	9.0	7.0	3.5	---	---	4.0	.5	---	---	6.0	4.0
3	14.0	8.5	7.0	3.5	---	---	4.0	1.5	---	---	5.5	4.5
4	14.0	8.5	9.0	5.5	---	---	3.5	1.5	---	---	7.5	3.5
5	14.0	8.5	8.5	5.0	5.5	5.0	3.5	2.0	---	---	8.0	3.5
6	14.0	8.5	7.5	5.0	5.5	4.0	3.5	1.5	---	---	7.0	4.5
7	14.0	8.5	8.5	5.0	5.0	4.5	2.5	.0	2.5	.5	6.0	3.0
8	14.0	9.0	8.5	5.0	5.0	3.5	1.5	.0	3.0	.5	8.0	4.5
9	13.5	8.5	7.5	4.5	4.5	2.5	1.5	.0	3.0	.5	8.0	4.0
10	13.0	8.0	7.0	3.0	2.5	.0	2.5	.5	2.5	.0	8.5	4.0
11	12.5	7.5	7.0	3.0	2.5	.0	2.0	.5	1.0	.0	7.0	4.0
12	11.0	8.0	9.0	6.0	2.5	.0	1.0	.0	3.0	.5	9.0	5.0
13	12.0	10.0	7.0	3.0	2.5	.0	1.0	.0	4.0	.5	8.5	4.5
14	10.5	8.5	4.0	1.5	2.5	.0	1.0	.0	4.5	.5	8.5	4.0
15	10.5	8.5	2.0	1.0	3.0	.5	1.0	.0	6.0	2.5	9.5	4.5
16	7.5	6.5	1.5	.0	3.5	.5	3.0	.5	6.5	3.0	8.5	4.5
17	7.5	6.0	---	---	3.5	1.0	4.5	2.0	5.0	3.0	8.5	5.0
18	8.5	6.0	---	---	4.0	1.0	3.0	.0	6.5	3.0	9.0	4.5
19	10.0	6.0	---	---	4.5	1.5	3.0	.0	7.0	3.0	9.0	4.5
20	9.5	5.5	---	---	4.0	1.5	3.0	.0	6.5	4.0	8.0	6.5
21	9.5	5.5	---	---	4.5	2.0	2.5	.0	4.5	1.5	7.5	5.0
22	9.0	5.5	---	---	5.0	2.5	2.5	.0	5.5	2.0	9.5	4.5
23	7.5	4.5	---	---	5.0	3.0	3.0	.0	6.5	1.5	10.5	6.0
24	7.0	3.0	---	---	3.0	.5	3.0	.0	7.0	2.5	9.0	6.5
25	7.0	2.5	---	---	4.0	1.5	4.0	1.5	7.0	3.0	9.5	4.0
26	6.5	3.5	---	---	5.0	3.0	1.5	.0	6.0	3.5	13.0	7.0
27	7.0	5.5	---	---	4.5	2.0	3.0	.0	7.0	2.5	11.0	8.0
28	5.0	3.0	---	---	4.5	2.5	4.5	2.5	6.5	3.0	8.0	6.0
29	6.0	2.5	---	---	4.0	2.0	---	---	---	---	9.0	4.5
30	7.0	2.5	---	---	3.0	.5	---	---	---	---	8.0	3.5
31	7.0	3.5	---	---	3.0	.5	---	---	---	---	7.5	2.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	4.0	15.0	9.0	15.0	9.0	19.0	16.0	20.5	16.0	20.5	14.5
2	10.5	6.0	13.5	10.0	14.5	10.0	18.5	15.0	22.0	15.5	18.5	14.5
3	9.5	5.5	12.0	8.5	14.0	10.0	19.5	15.0	23.0	16.5	20.5	15.5
4	7.0	4.5	13.5	7.5	16.5	10.0	20.0	15.0	22.5	17.5	19.5	14.5
5	9.0	2.5	12.0	8.5	16.5	11.0	20.5	15.0	22.5	16.0	18.5	16.0
6	11.5	5.0	12.5	9.0	16.5	11.0	20.5	15.5	22.5	16.0	18.5	15.5
7	9.0	7.0	13.5	8.5	15.5	11.0	20.5	16.0	22.5	16.0	20.0	15.5
8	10.0	6.5	9.5	7.5	15.5	11.0	21.5	16.5	22.5	16.0	18.5	14.5
9	13.5	6.5	12.5	6.0	16.0	11.0	19.5	16.0	22.0	16.5	19.0	15.0
10	---	---	14.0	7.0	15.5	11.0	20.5	16.0	19.5	16.0	19.0	15.0
11	---	---	11.5	8.5	16.5	11.0	20.5	15.5	17.0	14.0	18.5	15.0
12	---	---	10.0	7.5	16.5	11.0	20.5	16.5	20.5	15.5	18.5	13.5
13	---	---	14.5	7.0	15.5	11.5	18.5	16.0	19.0	16.0	18.5	14.5
14	---	---	14.5	8.5	14.0	10.0	21.0	15.0	20.5	15.5	18.5	13.0
15	---	---	12.5	10.0	15.0	8.5	21.0	16.0	19.5	16.5	18.5	13.0
16	---	---	13.0	9.5	16.0	9.5	19.5	16.5	22.0	15.5	18.5	13.5
17	---	---	12.5	9.5	17.0	11.5	17.0	15.0	21.0	15.5	18.0	12.5
18	14.0	9.5	15.5	9.0	16.0	12.0	20.5	14.5	20.5	15.0	18.0	12.0
19	14.5	10.5	15.5	10.5	18.5	11.5	21.5	16.0	21.0	15.0	17.5	12.0
20	11.5	8.5	14.5	11.5	18.5	13.0	20.5	15.0	22.5	16.0	17.5	12.0
21	12.5	7.5	---	---	18.5	13.0	21.5	15.0	20.5	16.0	18.5	14.5
22	14.0	8.5	---	---	18.5	13.5	20.5	15.5	21.0	16.0	16.5	13.5
23	14.0	8.0	16.5	9.5	18.0	13.5	20.5	15.5	20.5	15.0	18.5	13.0
24	15.0	9.0	16.5	10.5	19.5	14.5	21.5	15.5	18.5	15.0	18.5	15.0
25	15.0	9.5	15.0	12.0	20.0	14.5	20.5	16.5	20.5	14.5	16.5	13.0
26	15.0	9.0	15.0	11.0	20.5	15.5	20.5	15.5	20.5	15.0	16.5	12.0
27	13.5	9.0	15.5	12.0	19.0	15.5	20.5	15.0	20.5	15.5	16.5	11.0
28	15.0	9.0	16.5	11.5	17.5	15.5	20.5	15.0	21.5	15.5	16.5	11.5
29	15.0	9.0	15.0	10.0	18.5	14.5	21.5	15.5	19.5	15.5	16.5	12.0
30	15.5	9.0	15.5	9.5	20.5	14.0	20.5	15.0	21.0	15.5	16.5	12.0
31	---	---	14.0	10.5	---	---	22.5	16.0	21.0	16.0	---	---

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi (1.0 km) downstream from Roaring Fork River and 1.0 mi (1.6 km) northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6,013 mi^2 (15,574 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,700.75 ft (1,737.589 m) Colorado State Highway Department datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres (445 km^2).

AVERAGE DISCHARGE.--15 years, 3,254 ft^3/s (92.15 m^3/s), 2,358,000 acre-ft/yr (2,910 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,500 ft^3/s (581 m^3/s) June 15, 1973, gage height, 9.48 ft^3/s (2.890 m); minimum daily, 870 ft^3/s (24.6 m^3/s) Feb. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,310 ft^3/s (264 m^3/s) at 0700 June 10, gage height, 6.48 ft (1.975 m); minimum daily, 870 ft^3/s (24.6 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1810	1890	1710	1420	1040	1030	1030	2900	5930	2840	1810	1870
2	1820	1880	1680	1440	966	1040	1080	3110	5960	3210	1780	1850
3	1710	1870	1650	1440	977	1050	1100	4340	6570	3340	1700	1770
4	1720	1830	1670	1400	1030	1060	1090	4500	6590	3180	1640	1770
5	1680	1860	1680	1480	1000	1040	1060	3700	6920	2970	1670	1760
6	1700	1840	1710	1350	1010	1030	1090	3190	7320	2780	1730	1810
7	1700	1820	1710	1310	999	1020	1080	2800	8010	2610	1630	1840
8	1690	1820	1670	1240	982	1030	1110	2550	8400	2400	1630	2000
9	1640	1820	1610	1220	1020	1020	1130	2350	8510	2340	1640	1970
10	1670	1810	1440	1220	1050	1030	1190	2110	8500	2510	1780	2020
11	1570	1830	1390	1190	870	1020	1280	1940	7930	2560	1830	2100
12	1600	1770	1490	1140	983	1030	1440	1880	7110	2780	1900	2270
13	1670	1930	1480	1090	1040	1000	1530	2000	6090	2800	1950	2190
14	1710	2000	1410	1090	1050	1020	1600	2070	5100	2760	2000	2230
15	1730	1920	1450	1150	1060	994	1810	2060	4140	2540	1980	2160
16	1790	1670	1500	1210	1070	1020	1940	2120	3550	2300	1950	2020
17	1900	1570	1520	1280	1050	1050	2040	2170	3320	2440	1980	1950
18	1910	1480	1530	1190	1040	1010	2130	2330	3310	2570	1890	1790
19	1930	1430	1570	1160	1040	1030	2310	2360	3100	2530	1840	1690
20	1950	1600	1540	1080	1050	1030	2410	2400	3270	2380	1770	1730
21	1980	1580	1540	1070	1040	1040	2320	2430	3520	2130	1710	1720
22	2010	1600	1550	1040	1010	1040	2200	2390	3580	1940	1700	1690
23	1990	1750	1600	1060	1030	1030	2020	2280	3340	1850	1790	1720
24	1920	1720	1490	1070	1040	1030	1940	2330	3120	1850	1840	1700
25	1880	1720	1570	1120	1040	1030	2130	2490	2990	1870	1870	1700
26	1870	1680	1530	1060	1070	1040	2520	2750	2900	2070	1840	1690
27	1960	1580	1530	1050	1050	1070	2830	3220	2910	2280	1810	1610
28	1970	1640	1520	1100	1040	1080	2820	4280	3300	2230	1800	1550
29	1870	1680	1510	1130	---	1070	2810	5310	3420	2100	1780	1530
30	1850	1720	1390	1100	---	1080	2840	5680	3160	1960	1790	1540
31	1860	---	1440	1060	---	1080	---	6170	---	1840	1830	---
TOTAL	56060	52310	48080	36960	28647	32144	53880	92210	151870	75960	55860	55240
MEAN	1808	1744	1551	1192	1023	1037	1796	2975	5062	2450	1802	1841
MAX	2010	2000	1710	1480	1070	1080	2840	6170	8510	3340	2000	2270
MIN	1570	1430	1390	1040	870	994	1030	1880	2900	1840	1630	1530
AC-FT	111200	103800	95370	73310	56820	63760	106900	182900	301200	150700	110800	109600

CAL YR 1980 TOTAL 1349010 MEAN 3686 MAX 18200 MIN 1390 AC-FT 2676000
WTR YR 1981 TOTAL 739221 MEAN 2025 MAX 8510 MIN 870 AC-FT 1466000

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to current year.
WATER TEMPERATURE: January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Water-quality monitor located 2.1 mi (3.4 km) below gaging station, and records considered equivalent. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,660 micromhos March 11, 1981; minimum, 248 micromhos July 6, 1980.
WATER TEMPERATURE: Maximum, 22.5°C Aug. 4, 1981; minimum, 0.0°C many days during winter period each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,660 micromhos March 11; minimum, 310 micromhos June 10.
WATER TEMPERATURE: Maximum, 22.5°C Aug. 4; minimum, 0.0°C many days during November to February.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	904	1010	1110	1180	1410	1400	1450	623	426	798	785	843
2	1060	1030	1110	1200	1460	1370	1350	594	434	730	814	1020
3	996	1020	1110	1190	1460	1380	1370	493	409	724	879	1010
4	772	1070	1110	1200	1480	1390	1350	474	410	733	939	984
5	847	1100	1080	1170	1460	1390	1370	531	394	755	994	987
6	914	1080	1060	1210	1470	1390	1370	592	375	808	982	980
7	981	1070	1050	1260	1470	1390	1370	652	348	842	961	973
8	1050	1060	1050	1250	1500	1400	1340	689	332	877	1010	959
9	1130	1060	1060	1290	1450	1420	1310	699	327	895	1000	958
10	1070	1060	1010	1290	1390	1410	1280	710	324	859	970	943
11	1090	1060	1120	1310	1410	1470	1240	731	338	825	953	950
12	1130	1100	1270	1340	1530	1400	1140	769	350	874	951	860
13	1160	1040	1260	1370	1430	1440	1020	825	390	870	945	877
14	1140	1040	1240	1380	1390	1430	949	819	400	863	928	973
15	1150	1050	1250	1360	1370	1440	916	838	450	915	918	925
16	1140	1110	1200	1290	1360	1440	861	803	510	929	930	956
17	1090	1060	1160	1240	1370	1400	823	800	560	920	933	964
18	1100	822	1150	1290	1440	1420	829	772	620	902	946	969
19	1000	781	1150	1350	1340	1420	820	775	693	856	961	1020
20	1100	896	1150	1400	1400	1420	857	779	667	914	978	1020
21	1080	1120	1150	1430	1400	1420	816	791	633	954	994	1010
22	1040	1130	1140	1460	1390	1410	844	798	623	992	976	1010
23	958	1160	1100	1440	1380	1420	868	826	646	997	950	1000
24	839	1180	1130	1430	1370	1420	886	828	681	969	941	964
25	854	1120	1110	1380	1360	1420	859	789	713	997	952	972
26	934	1130	1130	1400	1370	1410	791	740	739	941	992	997
27	1030	1130	1130	1430	1390	1380	721	649	721	862	994	1040
28	1000	1140	1140	1440	1400	1370	668	526	731	844	985	1100
29	936	1140	1140	1310	---	1370	656	455	786	890	991	1070
30	965	1110	1190	1360	---	1370	662	436	778	963	978	1040
31	992	---	1180	1400	---	1360	---	419	---	901	947	---

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	10.0	7.5	5.0	4.0	3.0	4.0	2.0	2.0	.5	---	---
2	15.0	6.0	7.5	5.5	4.0	3.0	3.5	2.0	2.5	.0	---	---
3	14.5	4.0	7.5	5.5	5.0	3.5	3.5	2.5	1.5	.0	---	---
4	14.0	11.0	9.0	6.5	5.0	4.0	3.5	2.5	2.0	.0	---	---
5	14.0	11.0	8.5	7.0	5.0	4.5	3.0	2.5	2.0	.0	---	---
6	14.5	11.0	8.5	6.5	5.0	4.5	4.0	2.5	2.0	.5	6.0	4.5
7	14.5	11.0	8.5	7.0	5.0	4.5	3.0	2.0	2.0	.0	5.0	3.5
8	14.0	11.0	9.0	7.0	5.0	4.5	2.5	2.0	2.5	.0	12.0	4.0
9	14.0	10.5	9.0	7.0	4.5	3.0	2.5	2.0	2.5	1.0	12.0	4.0
10	13.5	10.5	8.5	6.5	2.5	.0	2.5	2.0	1.5	.0	12.5	4.0
11	12.5	10.5	7.5	6.5	2.5	.0	2.5	2.0	---	---	13.5	4.5
12	11.5	9.0	8.5	7.0	2.5	.5	2.5	2.0	2.0	.0	7.0	4.5
13	13.0	9.5	8.0	7.0	2.5	.5	2.5	2.0	3.0	.0	7.0	4.5
14	11.5	11.0	7.5	5.0	2.0	.5	2.5	2.0	2.5	.5	7.5	4.5
15	13.0	10.0	5.0	3.5	2.5	1.0	2.5	2.0	3.5	1.5	8.0	5.0
16	10.0	6.5	3.5	2.5	2.0	.0	3.0	2.0	4.0	2.5	7.5	5.0
17	8.5	7.5	2.0	.0	2.0	1.0	4.0	2.5	3.5	2.5	6.5	5.0
18	9.0	8.0	---	---	3.0	2.0	3.0	2.0	4.0	2.5	7.5	5.0
19	10.0	7.5	---	---	3.5	2.0	3.0	2.0	4.5	2.0	7.5	5.0
20	10.0	7.5	---	---	3.5	2.5	3.5	2.0	4.5	3.5	6.5	5.5
21	10.0	7.5	3.0	.0	4.0	2.5	3.0	2.0	---	---	6.0	4.5
22	9.5	7.5	---	---	4.0	3.0	1.5	.0	---	---	8.0	4.5
23	8.5	7.0	3.0	.0	4.5	3.0	1.5	.0	---	---	9.0	6.0
24	7.5	5.5	3.5	2.0	3.5	2.5	1.5	.5	---	---	7.5	6.0
25	7.5	5.0	3.0	2.5	4.0	2.5	2.5	.5	---	---	8.0	4.5
26	7.0	5.5	3.0	2.0	4.5	4.0	1.5	.0	---	---	9.5	6.5
27	7.0	6.0	2.0	1.0	4.5	3.5	2.0	.5	---	---	9.5	7.5
28	6.5	5.5	3.0	1.0	4.5	3.0	3.0	1.5	---	---	7.5	6.0
29	6.5	4.5	3.0	2.0	4.0	2.5	3.5	2.0	---	---	8.0	5.5
30	7.0	4.5	3.5	2.5	3.0	2.0	2.5	1.0	---	---	6.0	4.0
31	7.0	5.0	---	---	3.0	2.0	2.0	1.0	---	---	6.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	4.0	13.5	10.0	14.5	11.5	18.0	17.0	20.0	18.5	18.5	16.0
2	8.5	5.5	12.0	10.5	15.0	12.0	18.0	15.5	21.0	17.0	17.0	15.5
3	7.5	6.0	11.0	9.0	15.0	12.5	18.5	16.0	22.0	18.5	17.5	16.0
4	6.0	4.5	10.0	8.0	15.0	12.0	19.0	16.0	22.5	19.5	18.0	16.0
5	8.0	3.5	10.0	9.0	15.0	11.5	20.0	16.5	22.0	18.5	17.0	16.5
6	9.0	5.0	10.5	9.0	15.0	12.0	21.0	17.0	22.0	18.5	17.0	16.0
7	7.5	7.0	10.5	8.5	15.0	12.0	21.0	17.5	21.0	18.5	18.5	16.0
8	8.5	6.0	9.0	7.5	14.5	11.5	21.5	18.5	20.5	18.0	18.0	16.0
9	11.0	7.0	9.5	6.5	15.0	11.5	21.0	18.0	20.5	18.0	17.5	16.0
10	12.0	8.0	11.0	7.5	15.0	12.0	21.0	17.5	18.5	16.0	17.0	15.5
11	12.0	8.5	10.0	8.5	15.0	12.0	20.5	17.5	16.0	15.5	17.0	16.0
12	11.5	8.5	9.5	8.0	15.0	12.0	20.5	18.0	17.0	15.5	16.5	15.0
13	12.5	9.0	11.5	7.5	---	---	18.5	17.0	17.5	16.0	16.5	15.0
14	11.0	8.5	12.5	8.5	---	---	19.0	16.0	18.5	16.5	16.5	14.5
15	10.5	9.5	10.5	10.0	---	---	19.0	17.0	18.5	17.0	16.0	14.0
16	12.0	9.0	10.5	9.5	---	---	20.0	17.5	19.0	16.5	16.5	14.5
17	11.5	9.0	10.5	9.5	---	---	17.5	16.5	18.5	16.5	16.5	14.0
18	12.0	9.5	11.5	9.0	---	---	19.0	15.5	18.5	16.5	16.5	14.0
19	13.0	10.5	11.5	9.5	16.5	13.5	20.0	16.5	19.0	16.5	16.0	13.5
20	11.0	9.5	11.0	10.0	17.0	13.5	20.0	17.0	19.0	17.0	16.0	13.5
21	10.0	8.5	10.0	9.5	17.5	14.5	20.5	17.0	19.0	17.0	17.0	14.5
22	11.0	8.5	10.5	9.5	18.0	14.5	20.5	17.0	19.0	17.0	16.0	14.5
23	12.0	8.5	13.5	9.5	17.0	14.5	20.5	17.0	18.5	16.5	17.0	14.5
24	13.5	9.0	15.0	10.5	19.0	15.5	20.5	17.0	17.0	16.5	17.0	15.5
25	13.0	9.5	15.0	12.5	19.0	15.5	20.5	18.0	17.0	15.5	15.5	14.5
26	13.5	10.0	14.0	12.5	20.0	16.0	19.5	17.0	17.0	15.5	15.5	13.5
27	12.5	10.0	15.5	13.5	19.0	16.5	19.0	16.5	17.0	15.5	15.5	12.0
28	13.0	10.0	16.0	13.0	17.5	16.5	19.0	16.0	16.5	15.5	15.5	12.5
29	13.5	10.0	15.0	12.5	17.5	15.5	19.5	16.5	17.5	16.5	15.0	13.0
30	13.5	10.0	15.5	12.0	19.0	15.5	19.5	16.5	18.0	16.5	15.5	12.5
31	---	---	14.5	12.5	---	---	21.0	17.5	18.5	16.0	---	---

09085200 CANYON CREEK ABOVE NEW CASTLE, CO

LOCATION.--Lat 39°36'19", long 107°24'21", in NW¼NW¼ sec.24, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on right bank 200 ft (61 m) upstream from diversion headgate, 0.4 mi (0.6 km) upstream from East Canyon Creek, and 5.0 mi (8.0 km) northeast of New Castle.

DRAINAGE AREA.--23.8 mi^2 (61.6 km^2).

PERIOD OF RECORD.--March 1969 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1972(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft (1,884 m), from topographic map.

REMARKS.--Records good. A few small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 49.3 ft^3/s (1.396 m^3/s), 35,720 acre-ft/yr (44.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 932 ft^3/s (26.4 m^3/s) June 8, 1975, gage height, 4.86 ft (1.481 m); maximum gage height, 5.15 ft (1.570 m) June 5, 1980; minimum daily discharge, 2.6 ft^3/s (0.07 m^3/s) Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 282 ft^3/s (7.99 m^3/s) at 2200 May 28, gage height, 4.12 ft (1.256 m), no peak above base of 350 ft^3/s (9.9 m^3/s); minimum daily, 7.1 ft^3/s (0.20 m^3/s) Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	12	12	9.9	11	12	172	251	34	15	12
2	11	15	12	12	8.3	11	13	176	249	41	15	12
3	11	15	12	12	11	11	13	192	258	39	14	12
4	11	15	12	12	11	11	13	141	241	35	14	11
5	10	14	12	12	12	11	13	123	226	32	13	12
6	10	14	12	11	12	11	15	116	218	30	12	14
7	10	14	12	11	12	11	16	109	210	28	12	13
8	10	13	12	11	11	11	16	101	198	27	12	16
9	9.7	13	12	11	11	11	16	98	186	26	12	14
10	9.8	13	11	12	10	11	17	96	169	27	13	14
11	9.9	13	12	11	10	11	19	96	149	25	14	14
12	10	13	12	11	12	11	22	91	128	26	13	13
13	11	16	11	11	12	11	23	86	112	26	13	14
14	11	14	11	11	11	11	27	87	103	24	12	14
15	13	11	11	11	12	10	32	95	96	23	12	13
16	13	11	11	11	12	10	34	99	88	23	13	14
17	13	11	11	11	12	11	37	100	75	24	13	14
18	13	12	11	11	12	10	46	100	68	22	12	13
19	14	13	11	11	12	10	64	104	63	22	12	14
20	15	13	11	11	12	10	71	111	59	21	12	14
21	16	13	12	11	11	11	68	111	56	20	12	14
22	16	13	12	11	11	10	69	110	52	19	11	13
23	16	13	13	11	11	10	73	112	49	19	11	13
24	15	13	12	11	11	10	87	115	46	18	11	13
25	15	12	12	11	11	9.9	110	126	44	18	10	13
26	15	12	12	10	12	10	130	149	41	18	11	13
27	15	12	12	11	12	11	141	195	40	17	11	13
28	14	12	11	11	12	11	147	246	43	17	11	12
29	14	11	11	11	---	10	154	260	38	17	11	12
30	16	12	11	11	---	10	161	250	36	16	11	12
31	16	--	12	11	---	7.1	---	259	---	16	11	---
TOTAL	394.4	391	361	346	316.2	325.0	1659	4226	3592	750	379	395
MEAN	12.7	13.0	11.6	11.2	11.3	10.5	55.3	136	120	24.2	12.2	13.2
MAX	16	16	13	12	12	11	161	260	258	41	15	16
MIN	9.7	11	11	10	8.3	7.1	12	86	36	16	10	11
AC-FT	782	776	716	686	627	645	3290	8380	7120	1490	752	783

CAL YR 1980 TOTAL 18495.8 MEAN 50.5 MAX 575 MIN 6.4 AC-FT 36690
WTR YR 1981 TOTAL 13134.6 MEAN 36.0 MAX 260 MIN 7.1 AC-FT 26050

09085300 EAST CANYON CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°36'33", long 107°26'03", in SE¼SE¼ sec.13, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on left bank at upstream side of Forest Service stock trail bridge, 0.6 mi (1.0 km) upstream from Possum Creek, 0.9 mi (1.4 km) upstream from mouth, and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--15.1 mi² (39.1 km²).

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. Small diversions above station for irrigation of hay meadows. Diversion by Buster No. 1 ditch about 100 ft (30 m) above gage began May 16, 1974; capacity of ditch, about 1.5 ft³/s (0.04 m³/s). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 22.6 ft³/s (0.640 m³/s), 16,370 acre-ft/yr (20.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 956 ft³/s (27.1 m³/s) June 11, 1978, gage height, 3.42 ft (1.042 m), from rating curve extended above 210 ft³/s (5.9 m³/s); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 22, 23.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft³/s (3.68 m³/s) at 2400 May 30, gage height, 2.44 ft (0.744 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	8.1	4.8	4.3	3.8	3.7	4.0	75	100	11	5.6	4.6
2	4.5	7.8	4.7	4.3	3.4	3.7	4.3	80	100	18	6.9	5.3
3	4.6	7.6	4.8	4.3	3.8	3.7	4.6	95	109	13	5.3	5.6
4	4.8	7.6	4.7	4.3	4.0	3.8	4.3	75	103	12	5.6	3.8
5	4.8	7.9	4.8	4.5	3.8	3.7	4.3	65	98	9.6	5.6	3.8
6	4.2	7.7	4.7	4.2	4.0	3.8	4.6	61	95	8.6	5.9	6.2
7	3.6	7.5	4.9	4.2	3.8	3.8	4.6	53	92	8.2	5.9	4.3
8	5.5	7.4	4.6	4.2	3.9	3.7	4.6	47	85	11	5.9	4.6
9	6.1	6.9	4.5	4.4	3.5	3.7	4.6	41	78	8.2	5.6	3.2
10	5.4	7.4	4.3	4.3	3.5	3.7	5.6	39	67	8.2	9.1	3.0
11	3.5	8.0	4.5	4.2	3.4	3.6	6.6	38	59	6.6	9.1	2.8
12	4.5	8.4	4.6	4.2	3.5	3.7	6.9	33	50	8.2	8.6	2.4
13	7.6	10	4.5	4.2	3.1	3.6	7.2	29	44	9.6	7.7	2.8
14	6.8	7.9	4.3	4.0	2.8	3.6	8.2	33	41	8.2	7.2	3.0
15	10	5.9	4.3	3.9	3.4	3.6	9.6	35	35	6.6	10	2.4
16	8.8	6.3	4.3	3.9	3.7	3.6	9.6	34	29	6.9	9.1	2.4
17	9.8	6.4	4.3	4.0	3.6	3.8	14	33	26	8.2	6.2	2.2
18	14	6.1	4.3	3.8	3.6	3.7	17	33	25	8.2	5.3	2.2
19	13	6.4	4.1	3.8	3.7	3.7	24	34	24	7.7	4.6	2.0
20	12	6.1	4.3	3.8	3.7	3.7	20	38	27	6.2	4.3	2.0
21	11	5.8	4.3	3.8	3.5	3.8	17	35	18	6.6	4.0	2.0
22	11	5.4	4.4	3.7	3.6	3.7	18	33	16	5.6	4.0	1.9
23	9.5	5.5	4.8	3.9	3.6	3.7	20	34	16	5.9	3.8	1.9
24	8.2	5.5	4.4	3.8	3.7	3.8	27	41	15	6.2	3.8	2.2
25	8.5	5.0	4.3	3.8	3.6	3.7	42	50	13	7.2	4.0	2.4
26	8.6	4.9	4.3	3.5	3.7	3.9	50	59	13	7.2	4.3	2.2
27	8.8	4.5	4.4	3.6	3.7	4.4	49	88	15	6.6	5.3	2.0
28	7.9	4.7	4.3	3.7	3.7	4.3	52	106	23	5.6	6.2	2.0
29	7.4	4.7	4.2	3.8	---	4.2	65	109	14	4.6	5.6	2.0
30	7.4	5.0	4.3	3.8	---	4.2	71	106	12	5.3	5.0	2.6
31	7.6	---	4.3	3.9	---	4.1	---	109	---	5.3	7.2	---
TOTAL	234.1	198.4	138.3	124.0	101.0	117.7	579.6	1741	1437	250.3	186.7	89.8
MEAN	7.55	6.61	4.46	4.00	3.61	3.80	19.3	56.2	47.9	8.07	6.02	2.99
MAX	14	10	4.9	4.5	4.0	4.4	71	109	109	18	10	6.2
MIN	3.5	4.5	4.1	3.5	2.8	3.6	4.0	29	12	4.6	3.8	1.9
AC-FT	464	394	274	246	200	233	1150	3450	2850	496	370	178

CAL YR 1980 TOTAL 8978.2 MEAN 24.5 MAX 250 MIN 2.8 AC-FT 17810
WTR YR 1981 TOTAL 5197.9 MEAN 14.2 MAX 109 MIN 1.9 AC-FT 10310

09085400 POSSUM CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°35'52", long 107°25'24", in SW¼ sec.19, T.5 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on right bank 1.0 mi (1.6 km) upstream from mouth and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--6.41 mi² (16.60 km²).

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,410 ft (1,954 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 5.72 ft³/s (0.162 m³/s), 4,140 acre-ft/yr (5.10 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s (2.41 m³/s) Aug. 25, 1977, gage height, 2.49 ft (0.759 m), from floodmarks in well; minimum daily, 0.44 ft³/s (0.012 m³/s) Feb. 22, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft³/s (0.71 m³/s) at 0600 May 29, gage height, 1.90 ft (0.579 m), no peak above base of 30 ft³/s (0.85 m³/s); minimum daily, 0.82 ft³/s (0.023 m³/s) Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.9	2.2	2.1	1.7	1.6	1.8	15	18	5.5	3.3	2.3
2	2.2	2.8	2.1	2.2	1.4	1.6	1.8	16	17	5.9	3.2	2.3
3	2.2	2.8	2.1	2.1	1.6	1.6	1.9	22	17	5.5	3.1	2.2
4	2.1	2.8	2.1	2.1	1.8	1.6	1.7	18	16	5.2	3.1	2.1
5	2.1	2.7	2.1	2.1	1.9	1.6	1.6	15	15	5.0	3.0	2.3
6	2.1	2.6	2.1	1.9	1.9	1.7	1.8	14	14	4.8	3.0	2.5
7	1.9	2.5	2.1	1.8	1.9	1.6	1.8	14	14	4.7	3.0	2.3
8	1.9	2.5	2.0	1.8	1.8	1.6	1.8	15	13	4.5	3.0	2.3
9	2.0	2.4	2.1	1.9	1.7	1.6	1.8	12	12	4.5	2.9	2.2
10	2.0	2.4	.87	1.9	1.7	1.6	1.9	10	11	4.6	3.3	2.2
11	2.0	2.4	.82	2.0	1.7	1.6	2.0	9.3	10	4.5	3.2	2.2
12	2.1	2.4	1.1	1.9	1.9	1.6	2.1	8.8	9.8	4.6	3.2	2.2
13	2.2	2.6	2.1	1.8	1.9	1.6	2.3	8.4	9.4	4.7	3.1	2.2
14	2.0	2.8	2.1	1.8	1.8	1.6	2.5	8.2	9.2	4.2	3.0	2.2
15	2.3	2.6	2.0	1.8	1.8	1.7	2.7	9.5	8.7	4.1	3.0	2.1
16	2.4	2.3	2.0	1.8	1.9	1.7	3.3	9.7	8.3	4.0	2.9	2.1
17	2.9	2.0	2.1	1.8	1.9	1.8	3.7	9.6	7.9	4.2	2.7	2.0
18	2.6	2.1	2.1	1.8	1.9	1.7	5.5	9.0	7.2	4.2	2.8	2.0
19	2.6	2.2	2.1	1.8	1.9	1.7	8.1	8.8	6.9	4.0	2.8	2.0
20	2.6	2.3	2.1	1.8	1.8	1.7	7.4	9.0	6.7	3.9	2.6	2.0
21	2.8	2.4	2.1	1.8	1.8	1.7	5.6	9.0	6.4	3.8	2.6	2.0
22	3.0	2.4	2.1	1.8	1.7	1.6	5.5	9.0	6.2	3.7	2.5	1.9
23	3.0	2.4	2.1	1.8	1.7	1.6	5.8	8.8	6.1	3.7	2.5	1.9
24	3.0	2.4	2.1	1.8	1.7	1.7	7.3	8.9	6.0	3.7	2.4	1.9
25	3.0	2.3	2.1	1.8	1.7	1.7	9.5	9.5	5.8	3.8	2.4	2.0
26	2.8	2.2	2.1	1.8	1.7	1.7	11	11	5.8	3.7	2.4	2.0
27	2.8	2.2	2.1	1.8	1.6	1.8	12	14	5.9	3.7	2.4	2.0
28	2.7	2.3	2.1	1.8	1.6	1.8	11	20	6.2	3.5	2.3	1.9
29	2.7	2.3	2.1	1.8	---	1.8	13	23	5.8	3.4	2.4	1.9
30	2.7	2.1	2.1	1.8	---	1.8	14	21	5.5	3.4	2.5	1.9
31	3.0	---	2.1	1.8	---	1.7	---	21	---	3.3	2.5	---
TOTAL	75.8	73.1	61.39	58.0	49.4	51.7	152.2	396.5	290.8	132.3	87.1	63.1
MEAN	2.45	2.44	1.98	1.87	1.76	1.67	5.07	12.8	9.69	4.27	2.81	2.10
MAX	3.0	2.9	2.2	2.2	1.9	1.8	14	23	18	5.9	3.3	2.5
MIN	1.9	2.0	.82	1.8	1.4	1.6	1.6	8.2	5.5	3.3	2.3	1.9
AC-FT	150	145	122	115	98	103	302	786	577	262	173	125

CAL YR 1980 TOTAL 2520.29 MEAN 6.91 MAX 59 MIN .82 AC-FT 5010
WTR YR 1981 TOTAL 1491.39 MEAN 4.09 MAX 23 MIN .82 AC-FT 2960

NOTE.--NO GAGE-HEIGHT RECORD OCT. 20 TO NOV. 26, JAN. 15 TO FEB. 24.

DIVIDE CREEK BASIN

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in W½ sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft (3 m) downstream from private road bridge, 0.8 mi (1.3 km) upstream from Brook Creek, 8 mi (13 km) south of Raven, and 16 mi (26 km) south of Silt.

DRAINAGE AREA.--64.6 mi² (167.3 km²).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,050 ft (2,149 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 30.9 ft³/s (0.875 m³/s), 22,390 acre-ft/yr (27.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s (22.4 m³/s) May 12, 1962, gage height, 5.41 ft (1.649 m), from rating curve extended above 350 ft³/s (9.9 m³/s); maximum gage height, 5.45 ft (1.661 m) May 18, 1970; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 281 ft³/s (7.96 m³/s) at 0700 May 3, gage height, 4.58 ft (1.396 m), only peak above base of 160 ft³/s (4.53 m³/s); no flow Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	2.2	1.7	1.7	1.6	1.8	3.2	163	91	16	.90	1.1
2	.41	2.1	1.6	1.7	1.5	1.7	3.4	178	87	36	.90	.45
3	.42	2.0	1.7	1.7	1.3	1.7	3.6	248	99	25	.80	.35
4	.46	2.2	1.7	1.7	1.5	1.7	4.0	173	95	18	.63	.26
5	.45	2.0	1.7	1.7	1.7	1.7	4.5	121	86	14	.34	.21
6	.48	1.9	1.6	1.6	1.8	1.7	5.2	102	83	12	.18	.51
7	.56	1.9	1.6	1.6	1.8	1.7	5.5	83	90	11	.11	5.6
8	.63	2.0	1.6	1.6	1.8	1.7	5.7	75	86	10	.06	3.6
9	.73	1.8	1.6	1.6	1.7	1.7	6.8	66	83	10	.00	2.1
10	.79	1.8	1.6	1.6	1.6	1.7	10	57	78	17	.20	2.8
11	.77	1.6	1.6	1.7	1.5	1.7	15	55	71	14	1.7	3.1
12	.96	1.7	1.6	1.6	1.6	1.7	17	52	63	12	4.8	2.1
13	2.0	1.8	1.7	1.6	1.7	1.7	22	47	57	10	4.2	1.4
14	3.0	1.9	1.7	1.6	1.7	1.7	27	47	51	9.0	2.8	.95
15	5.5	2.0	1.6	1.6	1.7	1.7	33	52	45	8.0	2.1	.62
16	4.0	1.6	1.5	1.6	1.7	1.6	41	56	42	7.0	1.8	.46
17	3.7	1.2	1.5	1.6	1.8	1.6	48	57	36	5.5	1.2	.39
18	3.2	1.0	1.5	1.6	1.8	2.0	55	56	33	4.6	.67	.29
19	2.6	.87	1.5	1.6	1.8	1.8	69	57	30	4.0	.41	.17
20	2.2	.77	1.5	1.6	1.8	2.0	68	61	27	3.4	.37	.15
21	2.3	.59	1.6	1.6	1.7	1.6	48	71	24	2.8	.22	.11
22	2.3	.78	1.7	1.6	1.6	1.7	44	64	21	2.2	.17	.10
23	1.9	1.3	1.7	1.6	1.6	1.8	51	62	20	1.9	.20	.11
24	1.5	1.6	1.7	1.6	1.6	2.0	75	65	18	1.7	.21	.14
25	1.5	1.7	1.7	1.6	1.6	2.2	93	69	16	1.5	.19	.18
26	1.9	1.6	1.7	1.5	1.7	2.4	134	79	14	1.4	.32	.22
27	2.5	1.7	1.7	1.6	1.8	2.6	129	89	17	1.3	.16	.26
28	1.6	1.7	1.7	1.6	1.8	2.8	125	96	23	1.2	.17	.23
29	1.6	1.5	1.6	1.6	---	3.1	131	93	28	1.1	.11	.20
30	2.7	1.6	1.6	1.6	---	3.2	154	83	18	1.0	1.3	.20
31	2.7	---	1.6	1.6	---	3.2	---	94	---	1.0	2.3	---
TOTAL	55.80	48.41	50.4	50.1	46.8	61.2	1430.9	2671	1532	263.6	29.52	28.36
MEAN	1.80	1.61	1.63	1.62	1.67	1.97	47.7	86.2	51.1	8.50	.95	.95
MAX	5.5	2.2	1.7	1.7	1.8	3.2	154	248	99	36	4.8	5.6
MIN	.41	.59	1.5	1.5	1.3	1.6	3.2	47	14	1.0	.00	.10
AC-FT	111	96	100	99	93	121	2840	5300	3040	523	59	56

CAL YR 1980 TOTAL 14635.76 MEAN 40.0 MAX 414 MIN .41 AC-FT 29030
WTR YR 1981 TOTAL 6268.09 MEAN 17.2 MAX 248 MIN .00 AC-FT 12430

NOTE.--NO GAGE-HEIGHT RECORD JAN. 26 TO MAR. 17.

09092500 BEAVER CREEK NEAR RIFLE, CO

LOCATION.--Lat 39°28'19", long 107°49'55", in NW¼NE¼ sec.1, T.7 S., R.94 W., Garfield County, Hydrologic Unit 14010005, on left bank 150 ft (46 m) upstream from unnamed tributary, 200 ft (61 m) upstream from road bridge, 4.0 mi (6.4 km) upstream from mouth, and 4.8 mi (7.7 km) southwest of Rifle.

DRAINAGE AREA.--7.90 mi² (20.46 km²).

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and plank control. Altitude of gage is 6,685 ft (2,038 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 170 acres (688,000 m²) below station and about 380 acres (1.54 km²) in Mann Creek basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 4.53 ft³/s (0.128 m³/s), 3,280 acre-ft/yr (4.04 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s (2.41 m³/s) May 24, 1964, gage height, 4.00 ft (1.219 m), from rating curve extended above 52 ft³/s (1.5 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Dec. 21, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft³/s (1.02 m³/s) at 0400 May 3, gage height, 3.57 ft (1.088 m), only peak above base of 25 ft³/s (0.71 m³/s); minimum daily, 0.51 ft³/s (0.014 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.2	.72	.72	.82	.82	.90	16	13	3.2	1.5	1.3
2	.62	1.2	.65	.72	.82	.82	1.0	16	14	3.7	1.5	1.1
3	.62	1.1	.67	.72	.86	.82	1.0	26	16	3.0	1.4	1.3
4	.62	1.2	.72	.72	.87	.82	.87	17	15	2.4	1.3	1.0
5	.62	1.1	.72	.72	.87	.82	.94	13	14	2.1	1.2	.97
6	.62	1.1	.72	.72	.89	.82	.90	11	13	2.0	1.2	1.3
7	.62	1.2	.70	.72	.89	.82	.96	9.0	14	2.0	1.3	1.2
8	.51	1.2	.70	.72	.89	.83	.97	8.0	16	2.0	1.5	1.1
9	.58	1.2	.70	.72	.80	.80	1.2	6.5	16	2.4	1.5	1.0
10	.72	1.2	.72	.64	.80	.84	1.5	5.7	14	2.4	2.0	1.4
11	.72	1.2	.72	.62	.82	.83	1.7	5.2	13	1.8	2.2	1.1
12	.79	1.3	.72	.60	.80	.82	1.8	5.3	12	2.0	2.1	1.0
13	1.5	1.8	.72	.60	.80	.83	2.1	5.4	9.8	3.2	1.7	1.0
14	1.4	1.2	.70	.60	.80	.86	2.3	5.8	8.8	2.4	1.6	.93
15	1.8	.68	.69	.60	.84	.87	2.8	5.8	7.4	2.0	1.6	.93
16	1.2	.60	.72	.60	.73	.86	3.6	5.0	6.0	1.8	1.7	.91
17	1.2	.70	.72	.60	.72	.82	3.8	4.3	5.2	2.0	1.4	.85
18	1.4	.70	.72	.60	.73	.87	3.5	4.7	5.2	2.0	1.3	.82
19	1.2	.70	.72	.60	.77	.83	4.5	5.6	5.5	1.8	1.3	.82
20	1.2	.70	.72	.67	.73	.82	4.2	6.3	5.5	1.6	1.3	.82
21	1.1	.70	.72	.60	.80	.82	3.5	5.6	5.0	1.5	1.2	.83
22	1.1	.70	.72	.60	.80	.80	3.6	5.4	4.7	1.5	1.2	.82
23	.94	.70	.72	.60	.80	.92	3.9	5.4	4.4	1.5	1.1	.82
24	.92	.70	.72	.60	.80	.85	5.1	6.1	4.2	1.5	1.1	.82
25	1.2	.70	.72	.67	.80	.91	6.6	6.6	3.9	2.0	1.1	.74
26	1.2	.85	.72	.70	.82	1.0	8.6	7.9	3.6	1.8	1.0	.76
27	1.1	.68	.72	.70	.80	.99	9.3	12	3.4	1.8	1.1	.72
28	1.1	.72	.72	.72	.80	.90	9.5	18	4.7	1.6	1.0	.72
29	1.2	.72	.72	.72	---	.92	11	15	4.4	1.5	1.3	.72
30	1.3	.72	.72	.77	---	.90	14	13	3.4	1.4	2.1	.72
31	1.1	---	.72	.82	---	1.0	---	13	---	1.5	1.6	---
TOTAL	30.82	28.47	22.09	20.71	22.67	26.63	115.64	289.6	265.1	63.4	44.4	28.52
MEAN	.99	.95	.71	.67	.81	.86	3.85	9.34	8.84	2.05	1.43	.95
MAX	1.8	1.8	.72	.82	.89	1.0	14	26	16	3.7	2.2	1.4
MIN	.51	.60	.65	.60	.72	.80	.87	4.3	3.4	1.4	1.0	.72
AC-FT	61	56	44	41	45	53	229	574	526	126	88	57

CAL YR 1980 TOTAL 2179.47 MEAN 5.95 MAX 43 MIN .51 AC-FT 4320
WTR YR 1981 TOTAL 958.05 MEAN 2.62 MAX 26 MIN .51 AC-FT 1900

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°37'13", long 108°00'44", in NE¼NE¼ sec.14, T.5 S., R.95 W., in Garfield County, Hydrologic Unit 14010006, on right bank 50 ft (15 m) downstream from mouth of Bear Gulch, 750 ft (229 m) upstream from mouth, and 8.5 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft (2,262 m), from topographic map.

REMARKS.--Records good except for winter period, which are poor. No diversions or regulation above station.

AVERAGE DISCHARGE.--5 years, 4.15 ft³/s (0.117 m³/s), 3,010 acre-ft/yr, (3.71 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s (6.37 m³/s) May 17, 1979, gage height, 3.30 ft (1.006 m); minimum daily, 0.01 ft³/s (0.001 m³/s) Aug. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.0 ft³/s (0.25 m³/s) at 1700 Apr. 16, gage height, 3.13 ft (0.954 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.95	.68	.54	.52	.75	2.0	1.7	.90	1.0	.49	.45
2	.82	1.0	.68	.54	.52	.64	2.4	3.3	1.0	1.2	.48	.36
3	.83	1.0	.68	.54	.52	.64	2.1	3.1	1.3	1.0	.47	.36
4	.75	1.0	.68	.54	.52	.64	1.3	2.3	1.2	1.0	.46	.37
5	.75	1.0	.66	.54	.52	.86	1.2	3.1	1.2	.90	.45	.38
6	.75	1.1	.64	.54	.52	.75	1.2	2.6	1.4	.90	.44	.51
7	.75	1.1	.62	.54	.52	.64	1.6	2.3	1.6	.90	.34	.52
8	.79	1.1	.62	.54	.52	.75	1.2	2.3	1.6	.90	.34	.41
9	.73	.97	.62	.54	.52	.86	2.3	2.1	1.6	.90	.33	.42
10	.75	.95	.62	.54	.52	.75	3.8	2.4	1.6	1.2	.33	1.0
11	.73	.91	.62	.54	.52	.86	4.4	1.8	1.6	.90	.38	.86
12	.97	1.1	.60	.54	.52	.86	4.0	1.9	1.5	1.0	.37	.58
13	1.1	1.4	.60	.54	.52	.86	4.1	1.6	1.2	1.4	.36	.59
14	1.2	1.0	.60	.54	.52	.97	5.4	1.6	.90	.90	.32	.48
15	1.9	.76	.60	.54	.52	1.1	7.2	2.1	.75	.90	.38	.48
16	1.5	.75	.58	.52	.52	1.2	8.0	1.8	.90	.75	.51	.48
17	1.3	.75	.56	.52	.52	1.3	8.1	1.6	1.1	1.6	.41	.48
18	1.2	.75	.56	.52	.52	1.2	6.8	1.6	1.2	1.4	.34	.36
19	1.2	.75	.56	.52	.52	1.3	6.9	1.6	1.0	.90	.30	.32
20	1.2	.80	.56	.52	.52	1.5	5.1	2.1	.90	.75	.31	.32
21	1.1	.78	.56	.52	.52	1.5	4.2	2.1	.90	.60	.31	.32
22	1.1	.76	.56	.52	.52	1.6	3.5	2.1	.75	.60	.31	.32
23	.92	.74	.56	.52	.52	2.8	3.2	2.1	.75	.89	.32	.32
24	.76	.72	.56	.52	.52	2.3	3.0	2.0	.60	.87	.36	.32
25	.93	.70	.56	.52	.75	2.0	2.4	1.9	.60	1.0	.38	.32
26	1.1	.70	.56	.52	.64	2.9	1.9	1.8	.60	.85	.33	.32
27	1.1	.70	.56	.52	.64	2.5	1.7	1.7	.90	.83	.33	.32
28	.92	.70	.56	.52	.86	2.0	1.7	1.6	1.6	.67	.34	.32
29	.84	.70	.56	.52	---	1.9	1.5	1.6	1.9	.65	.42	.32
30	.97	.70	.56	.52	---	2.4	1.3	1.6	1.2	.64	.69	.32
31	.97	---	.56	.52	---	2.1	---	1.0	---	.50	.56	---
TOTAL	30.73	26.34	18.50	16.42	15.37	42.43	103.5	62.4	34.25	28.50	12.16	12.93
MEAN	.99	.88	.60	.53	.55	1.37	3.45	2.01	1.14	.92	.39	.43
MAX	1.9	1.4	.68	.54	.86	2.9	8.1	3.3	1.9	1.6	.69	1.0
MIN	.73	.70	.56	.52	.52	.64	1.2	1.0	.60	.50	.30	.32
AC-FT	61	52	37	33	30	84	205	124	68	57	24	26

CAL YR 1980 TOTAL 2738.13 MEAN 7.48 MAX 81 MIN .50 AC-FT 5430
WTR YR 1981 TOTAL 403.53 MEAN 1.11 MAX 8.1 MIN .30 AC-FT 800

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO FEB. 24.

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT 03...	1300	.81	510	517	8.0	5.0	10.8	210	51	20	33	1.0
NOV 20...	1325	.68	548	548	7.7	.5	11.0	220	54	20	35	1.0
JAN 08...	1310	.54	550	561	8.1	.0	--	220	54	21	37	1.1
FEB 24...	1330	.52	530	456	8.3	1.0	9.9	230	54	22	36	1.0
APR 23...	1450	3.0	430	433	8.2	--	8.6	180	44	16	27	.9
MAY 13...	1400	1.9	460	465	8.2	11.0	8.4	200	49	18	29	.9
JUN 17...	1240	1.2	490	500	8.2	17.0	8.0	210	53	19	32	1.0
JUL 22...	1300	.58	490	467	8.5	21.0	--	200	50	19	37	1.1
AUG 13...	1200	.36	522	522	8.3	14.0	9.0	210	53	19	36	1.2
SEP 14...	1310	.42	527	527	8.4	16.0	8.2	220	54	20	35	1.1

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 03...	.8	250	39	2.1	.2	14	312	.42	.68	.02	.000	2
NOV 20...	.7	260	44	2.8	.3	14	329	.45	.60	.26	.070	4
JAN 08...	.6	210	83	3.5	.2	14	342	.47	.50	.41	.040	5
FEB 24...	.5	260	41	1.7	.2	14	328	.45	.46	.35	.030	5
APR 23...	.7	200	28	1.6	.2	15	256	.35	2.1	.48	.080	4
MAY 13...	.8	220	32	1.3	.2	14	279	.38	1.4	.22	.040	9
JUN 17...	.7	240	24	1.2	.2	16	293	.40	.95	.25	.090	4
JUL 22...	.8	240	27	1.6	.2	16	297	.40	.47	.09	.060	5
AUG 13...	.8	260	24	1.7	.2	16	309	.42	.30	.14	.080	13
SEP 14...	.8	260	27	1.7	.2	15	311	.42	.35	.02	.010	7

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 03...	80	40	<1	6	20	2	7	5	.0	0	880	<3
NOV 20...	80	40	<1	5	<10	2	20	10	.0	0	910	5
JAN 08...	80	40	1	2	20	3	5	5	.0	0	920	20
FEB 24...	90	20	<1	4	10	0	20	150	.0	0	900	10
APR 23...	80	40	<1	4	10	2	6	7	.0	0	720	20
MAY 13...	80	30	<1	5	20	8	7	5	.1	0	780	5
JUN 17...	200	40	<1	3	<10	4	20	9	.0	0	850	4
JUL 22...	90	60	<1	7	10	2	10	10	.0	0	870	3
AUG 13...	90	50	<1	5	13	0	14	7	.0	0	920	5
SEP 14...	87	50	2	3	18	1	19	14	.0	0	920	27

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°37'15", long 108°01'46" in NW¼NW¼ sec.14, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.5 mi (0.8 km) upstream from mouth of Corral Gulch, 1.1 mi (1.8 km) downstream from mouth of Northwater Creek, and 9 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--22.1 mi² (57.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft (2,256 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Numerous beaver dams are located upstream. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 6.30 ft³/s (0.178 m³/s), 4,560 acre-ft/yr (5.62 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s (5.27 m³/s) May 17, 1979, gage height, 3.39 ft (1.033 m); minimum daily, 0.18 ft³/s (0.005 m³/s) Oct. 1, 2, 5, Dec. 12, 1977, Jan. 22, 23, Feb. 15, 18, 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft³/s (0.51 m³/s) at 1830 Apr. 16, gage height, 2.12 ft (0.646 m); minimum daily, 0.29 ft³/s (0.008 m³/s) Aug. 6, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.4	.80	.74	.67	1.1	3.4	2.8	1.0	1.2	.41	.50
2	.91	1.4	.80	.74	.67	.91	3.6	2.8	1.2	1.1	.40	.50
3	1.0	1.4	.80	.74	.67	.82	3.8	2.8	1.6	.99	.39	.50
4	1.0	1.4	.80	.74	.72	.82	4.0	2.8	1.5	.91	.39	.50
5	1.0	1.4	.80	.74	.67	.99	4.0	2.8	1.5	.77	.32	.50
6	1.0	1.4	.80	.74	.73	.99	4.0	2.9	1.6	.77	.29	.50
7	1.0	1.4	.80	.72	.73	.77	4.0	2.9	1.8	.72	.30	.50
8	1.0	1.4	.80	.72	.73	.82	4.1	2.9	1.8	.66	.30	.51
9	1.0	1.4	.80	.67	.73	.91	4.1	2.9	1.8	.72	.29	.56
10	1.1	1.3	.80	.72	.94	.99	4.1	2.9	1.8	1.1	.38	.72
11	1.1	1.4	.80	.67	.74	1.0	4.6	2.9	1.8	.77	.53	.82
12	1.1	1.4	.80	.72	.69	1.0	3.9	2.9	1.7	.82	.47	.66
13	1.3	1.6	.80	.73	.69	1.0	4.3	2.9	1.7	1.2	.40	.61
14	1.3	1.5	.80	.78	.69	1.0	7.2	2.9	1.1	.82	.36	.56
15	1.8	.54	.80	.73	.70	1.0	9.7	2.8	.71	.72	.32	.51
16	1.4	.65	.80	.73	.65	1.2	7.5	2.7	1.1	.72	.53	.56
17	1.4	.76	.80	.74	.70	1.2	10	2.6	1.7	1.1	.49	.56
18	1.4	.81	.80	.74	.70	1.3	10	2.5	1.6	1.4	.40	.56
19	1.2	.82	.78	.69	.76	1.3	9.4	2.4	1.6	.82	.40	.51
20	1.1	.80	.78	.69	.81	1.4	8.3	2.3	1.6	.72	.40	.56
21	1.0	.80	.78	.64	.81	1.5	7.0	2.2	1.6	.66	.40	.51
22	1.1	.80	.78	.69	.90	1.5	6.1	2.2	1.6	.61	.40	.46
23	1.1	.80	.78	.70	.82	1.5	5.0	2.2	1.5	.65	.40	.35
24	1.2	.80	.78	.75	.91	1.8	4.6	2.2	1.6	.80	.41	.35
25	1.3	.80	.78	.70	.99	2.0	4.5	2.1	1.7	.86	.42	.35
26	1.3	.80	.78	.70	.91	2.2	4.2	2.0	1.8	.63	.43	.35
27	1.4	.80	.78	.71	.91	2.0	4.0	1.9	2.1	.67	.44	.35
28	1.3	.80	.74	.66	.99	2.5	3.7	1.8	1.4	.56	.45	.30
29	1.1	.80	.74	.66	---	2.8	3.4	1.8	1.7	.49	.46	.35
30	1.4	.80	.74	.66	---	3.0	3.2	1.8	1.1	.48	.47	.30
31	1.4	---	.74	.66	---	3.2	---	1.1	---	.42	.50	---
TOTAL	36.70	32.18	24.38	22.02	21.63	44.52	159.7	76.7	46.31	24.86	12.55	14.87
MEAN	1.18	1.07	.79	.71	.77	1.44	5.32	2.47	1.54	.80	.40	.50
MAX	1.8	1.6	.80	.78	.99	3.2	10	2.9	2.1	1.4	.53	.82
MIN	.91	.54	.74	.64	.65	.77	3.2	1.1	.71	.42	.29	.30
AC-FT	73	64	48	44	43	88	317	152	92	49	25	29

CAL YR 1980 TOTAL 3884.76 MEAN 10.6 MAX 118 MIN .54 AC-FT 7710
WTR YR 1981 TOTAL 516.42 MEAN 1.41 MAX 10 MIN .29 AC-FT 1020

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO JAN. 8, MAR. 11 TO APR. 9, AUG. 20 TO SEPT. 11.

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 615 micromhos Dec. 18, 1976; minimum, 262 micromhos Mar. 23, 1977.
WATER TEMPERATURES: Maximum, 24.5°C July 18, Aug. 9, 14, 1977; minimum, freezing point most days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 5,360 mg/L May 16, 1979; minimum daily, 0.0 mg/L several days during winter months in the 1981 water year.
SEDIMENT LOADS: Maximum daily, 1,980 tons (1,800 t) May 16, 1979; minimum daily, less than 0.005 ton (0.005 t) several days during 1979 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 555 micromhos Jan. 13; minimum, 341 micromhos June 28.
WATER TEMPERATURE: Maximum, 24.0 July 6, 10, 11, 31; minimum, freezing point on many days during November to April.
SEDIMENT CONCENTRATIONS: Maximum daily, 535 mg/L June 29; minimum daily, 0.0 mg/L several days during winter months.
SEDIMENT LOADS: Maximum daily, 3.1 tons (2.8 t) June 29; minimum daily, less than 0.005 tons (0.005 t) several days during year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT 03...	1000	.98	540	542	8.0	5.0	9.8	220	53	21	37	1.1
NOV 20...	1120	.95	535	547	7.8	.0	10.8	220	53	20	36	1.1
JAN 08...	1100	.73	550	558	7.9	.0	--	220	54	21	37	1.1
FEB 24...	1030	.83	480	522	8.2	.5	10.2	230	54	22	37	1.1
APR 23...	1230	5.1	440	447	8.3	11.0	8.8	170	43	16	30	1.0
MAY 13...	1030	2.9	481	481	8.2	6.0	10.0	200	49	18	32	1.0
JUN 17...	1000	1.9	510	513	8.2	10.0	9.0	210	51	20	35	1.1
JUL 22...	1100	.77	525	528	8.3	15.0	--	210	50	20	40	1.2
AUG 13...	0950	.63	530	539	8.1	12.5	6.8	210	51	20	40	1.3
SEP 14...	1000	.45	530	425	8.3	11.5	9.2	220	55	20	38	1.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 03...	1.0	260	44	2.3	.2	15	331	.45	.88	.01	.040	6
NOV 20...	.8	250	43	2.1	.3	14	321	.44	.82	.16	.060	5
JAN 08...	.7	250	48	2.4	.2	13	329	.45	.65	.32	.040	5
FEB 24...	.6	200	48	2.0	.3	13	300	.41	.67	.31	.040	5
APR 23...	.8	200	32	1.9	.2	15	263	.36	3.6	.69	.050	4
MAY 13...	.6	220	36	1.6	.1	14	286	.39	2.2	.27	.020	4
JUN 17...	.7	240	36	1.8	.2	15	306	.42	1.6	.14	.110	4
JUL 22...	.9	250	25	1.6	.2	16	305	.41	.63	.09	.070	5
AUG 13...	.9	270	34	2.1	.2	16	328	.45	.56	.14	<.010	13
SEP 14...	.9	260	35	1.9	.2	17	326	.44	.40	.04	.010	6

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 03...	80	40	<1	3	<10	1	20	7	.0	0	850	<3
NOV 20...	90	30	<1	2	10	3	20	50	.0	0	830	7
JAN 08...	90	30	<1	5	<10	1	5	4	.0	0	830	6
FEB 24...	90	20	<1	4	20	0	20	40	.0	1	820	6
APR 23...	80	40	<1	3	20	3	5	7	.0	0	650	3
MAY 13...	80	30	<1	4	<10	7	8	9	.0	0	740	5
JUN 17...	200	40	<1	4	<10	1	20	3	.0	0	800	3
JUL 22...	90	60	<1	7	10	2	20	30	.0	0	850	6
AUG 13...	90	60	<1	2	<10	0	13	4	.0	0	850	7
SEP 14...	90	60	<1	4	16	0	8	7	.0	0	840	64

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	537	541	542	546	540	529	---	461	492	517	538	---
2	542	541	542	543	543	530	---	461	496	514	533	---
3	542	542	542	543	542	530	---	446	488	513	539	---
4	542	542	542	542	543	531	---	455	489	516	538	---
5	544	542	542	539	544	528	---	464	493	519	538	---
6	545	543	542	543	542	530	---	456	495	513	539	---
7	545	542	538	547	543	531	---	465	496	518	540	---
8	544	540	540	550	541	530	---	464	499	521	545	534
9	544	542	541	549	539	527	480	466	505	512	544	533
10	545	541	545	547	539	528	459	470	508	508	543	521
11	545	540	545	552	540	---	438	469	509	519	537	523
12	544	532	545	550	539	---	438	468	510	514	539	529
13	539	522	548	549	539	---	440	472	508	507	541	531
14	537	534	548	550	538	---	426	473	504	518	537	532
15	526	540	543	546	537	---	405	474	505	521	538	532
16	524	542	543	543	535	---	381	468	507	517	535	533
17	526	545	542	541	534	---	390	468	509	506	530	533
18	535	545	542	544	533	---	397	470	509	503	529	534
19	538	544	543	546	530	---	400	473	511	517	529	535
20	539	544	544	546	530	---	413	470	514	517	---	536
21	540	544	544	548	534	---	425	465	520	521	---	536
22	540	541	541	547	533	---	437	468	522	519	---	536
23	532	540	539	550	533	---	444	472	521	530	---	536
24	538	536	542	546	529	---	444	475	522	520	---	536
25	540	539	541	544	530	---	443	477	521	524	---	536
26	538	540	540	547	529	---	442	479	522	533	---	536
27	534	540	541	543	531	---	445	482	519	534	---	537
28	537	539	541	542	531	---	450	484	497	538	---	537
29	539	540	543	542	---	---	454	481	497	540	---	537
30	539	542	544	543	---	---	456	488	518	540	---	537
31	541	---	544	541	---	---	---	485	---	539	---	---

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	6.5	4.0	1.5	2.0	.5	.0	.0	.5	.0	2.5	.0
2	11.5	4.5	4.5	1.5	3.0	.5	.5	.0	.5	.0	2.0	.0
3	11.5	5.5	4.5	1.5	3.5	1.5	1.0	.0	.5	.0	2.0	.0
4	11.5	4.5	5.5	2.5	3.0	1.5	1.5	.0	.5	.0	2.5	.0
5	11.5	5.0	4.5	2.0	2.5	1.0	1.0	.0	.5	.0	2.5	.0
6	11.5	5.0	5.0	2.0	2.5	1.5	.5	.0	.5	.0	1.0	.0
7	11.5	5.0	5.0	2.5	2.5	.5	.0	.0	.5	.0	2.0	.0
8	11.5	5.0	4.5	2.0	2.5	.5	.0	.0	.5	.0	2.0	.0
9	11.0	4.5	4.0	1.5	1.0	.0	.0	.0	1.0	.0	2.0	.0
10	10.0	4.5	4.0	1.5	.0	.0	.0	.0	.5	.0	2.0	.0
11	10.0	4.0	4.5	1.5	.0	.0	.0	.0	.0	.0	---	---
12	9.0	4.5	6.0	3.0	.5	.0	.0	.0	.5	.0	---	---
13	10.5	7.0	4.0	2.0	.0	.0	.0	.0	.5	.0	---	---
14	9.0	5.0	3.0	.5	.5	.0	.0	.0	1.0	.0	---	---
15	6.5	4.5	1.5	.0	1.0	.0	.5	.0	1.5	.5	---	---
16	5.0	1.0	1.5	.0	1.0	.0	.5	.0	1.5	.0	---	---
17	7.0	2.5	1.0	.0	1.0	.0	1.0	.0	1.5	.0	---	---
18	6.5	3.0	1.0	.0	1.0	.0	.5	.0	2.0	.0	---	---
19	6.5	2.0	1.5	.5	1.5	.0	.0	.0	2.0	.0	---	---
20	6.0	1.5	1.5	.5	1.0	.0	.5	.0	1.0	.0	---	---
21	5.5	2.0	1.5	.0	1.5	.0	.0	.0	1.5	.0	---	---
22	6.5	2.5	3.0	.5	2.0	.5	.0	.0	1.0	.0	---	---
23	4.5	1.5	2.5	1.0	2.0	.0	.0	.0	1.5	.0	---	---
24	5.0	1.0	2.5	1.0	1.5	.0	.5	.0	1.5	.0	---	---
25	5.0	1.5	1.5	1.0	2.0	1.0	.5	.0	1.5	.0	---	---
26	5.5	2.5	2.0	.0	1.0	.0	.0	.0	1.0	.0	---	---
27	4.5	2.5	2.0	.0	1.5	.0	.5	.0	2.0	.0	---	---
28	5.0	1.0	2.5	.5	2.0	.5	1.0	.0	2.0	.0	---	---
29	4.5	1.0	2.5	.5	.5	.0	1.0	.0	---	---	---	---
30	4.0	1.5	3.5	1.0	.0	.0	.5	.0	---	---	---	---
31	4.5	1.5	---	---	.0	.0	.5	.0	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	14.5	4.0	18.0	6.0	16.0	12.5	22.0	13.0	---	---
2	---	---	13.0	5.5	19.0	6.0	21.0	12.0	17.0	11.0	---	---
3	---	---	8.5	4.5	13.5	8.5	19.0	10.0	23.5	11.0	---	---
4	---	---	14.5	3.0	19.0	6.5	22.5	9.5	22.0	11.0	---	---
5	---	---	14.0	3.0	20.0	6.5	23.5	10.0	23.5	10.0	---	---
6	---	---	13.0	4.5	21.0	7.0	24.0	10.5	23.0	10.0	---	---
7	---	---	13.5	2.0	20.0	9.0	23.5	11.0	23.0	10.0	---	---
8	---	---	7.5	2.5	20.5	8.5	22.5	12.0	22.0	11.0	19.0	12.0
9	8.0	1.5	11.5	3.0	21.0	8.5	20.5	12.0	21.0	10.0	18.0	11.0
10	8.0	.5	13.5	2.0	21.0	9.0	24.0	11.0	22.5	10.5	14.5	11.0
11	8.0	.5	8.5	3.0	21.5	9.0	24.0	12.0	15.5	10.5	17.0	10.0
12	7.5	.0	9.0	3.0	20.5	8.0	21.0	13.0	14.0	10.5	15.5	9.5
13	7.5	1.5	14.0	2.0	19.0	8.0	19.0	13.5	17.5	10.5	17.0	10.0
14	9.0	.5	15.5	2.5	11.5	6.0	23.0	12.0	17.0	11.0	18.0	9.0
15	9.0	2.5	11.5	4.5	17.0	3.5	23.0	11.5	20.5	11.5	16.5	9.0
16	12.0	1.0	11.0	4.5	19.0	4.5	17.0	13.0	18.5	11.5	17.5	9.0
17	11.5	1.0	8.5	4.5	19.5	6.5	18.5	12.0	20.0	10.5	17.0	5.5
18	11.0	1.5	12.5	5.0	18.5	6.5	22.5	11.0	19.5	10.0	17.0	8.0
19	12.0	4.0	13.5	4.5	20.5	7.0	23.0	11.0	17.5	10.0	14.0	8.0
20	9.5	2.0	9.5	3.5	20.0	8.0	23.0	9.5	---	---	17.0	8.5
21	10.5	1.0	8.5	3.0	21.0	8.5	23.0	10.0	---	---	17.5	10.0
22	10.5	1.5	9.5	4.5	22.0	8.5	22.5	11.0	---	---	17.0	9.5
23	14.5	1.0	15.0	5.0	20.5	9.0	23.5	10.0	---	---	17.0	8.5
24	12.5	2.0	14.5	4.0	21.5	9.5	23.5	11.0	---	---	17.0	10.0
25	15.5	2.5	13.0	6.0	20.5	9.0	23.5	12.0	---	---	15.0	9.5
26	15.0	2.5	13.5	6.5	23.0	11.0	22.0	12.0	---	---	15.5	5.5
27	13.5	3.0	16.0	7.5	22.5	12.0	20.5	10.5	---	---	15.5	6.5
28	15.5	3.0	15.0	7.5	19.5	10.5	21.5	9.5	---	---	16.0	7.5
29	15.5	3.0	10.0	7.0	22.0	10.0	20.0	10.0	---	---	13.5	8.0
30	15.5	3.5	17.5	5.5	23.5	9.5	21.5	11.0	---	---	15.0	8.5
31	---	---	14.0	8.0	---	---	24.0	11.0	---	---	---	---

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.99		.10	1.4		.02	.80		.01
2	.91		.06	1.4		.02	.80		.01
3	1.0		.02	1.4		.02	.80		.01
4	1.0		.02	1.4		.02	.80		.01
5	1.0		.02	1.4		.02	.80		.01
6	1.0		.02	1.4		.02	.80		.01
7	1.0		.02	1.4		.02	.80		.01
8	1.0		.02	1.4		.02	.80		.01
9	1.0		.02	1.4		.02	.80		.01
10	1.1		.02	1.3		.02	.80		.01
11	1.1		.02	1.4		.02	.80		.01
12	1.1		.02	1.4		.02	.80		.01
13	1.3		.02	1.6		.04	.80		.01
14	1.3		.02	1.5		.04	.80		.01
15	1.8		.04	.54		.00	.80		.01
16	1.4		.02	.65		.00	.80		.01
17	1.4		.02	.76		.01	.80		.01
18	1.4		.02	.81		.01	.80		.01
19	1.2		.02	.82		.01	.78		.01
20	1.1		.02	.80		.01	.78		.01
21	1.0		.02	.80		.01	.78		.01
22	1.1		.02	.80		.01	.78		.01
23	1.1		.02	.80		.01	.78		.01
24	1.2		.02	.80		.01	.78		.01
25	1.3		.02	.80		.01	.78		.01
26	1.3		.02	.80		.01	.78		.01
27	1.4		.02	.80		.01	.78		.01
28	1.3		.02	.80		.01	.74		.01
29	1.1		.02	.80		.01	.74		.01
30	1.4		.02	.80		.01	.74		.01
31	1.4		.02	---			.74		.01

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.74	---	.01	.67	---	.00	1.1		.02
2	.74	---	.01	.67	---	.00	.91		.01
3	.74	---	.01	.67	---	.00	.82		.01
4	.74	---	.02	.72	---	.00	.82		.01
5	.74	---	.02	.67	---	.00	.99		.01
6	.74	---	.02	.73	---	.01	.99		.02
7	.72	---	.02	.73	---	.01	.77		.05
8	.72	13	.02	.73	---	.01	.82		.06
9	.67	---	.00	.73	---	.01	.91		.08
10	.72	---	.01	.94	---	.02	.99		.09
11	.67	---	.00	.74	---	.01	1.0		.10
12	.72	---	.01	.69	---	.00	1.0		.10
13	.73	---	.01	.69	---	.00	1.0		.10
14	.78	---	.01	.69	---	.00	1.0		.10
15	.73	---	.01	.70	---	.00	1.0		.10
16	.73	---	.01	.65	---	.00	1.2		.10
17	.74	---	.01	.70	---	.00	1.2		.10
18	.74	---	.01	.70	---	.00	1.3		.10
19	.69	---	.00	.76	---	.01	1.3		.10
20	.69	---	.00	.81	---	.01	1.4		.20
21	.64	---	.00	.81	---	.01	1.5		.20
22	.69	---	.00	.90	---	.01	1.5		.20
23	.70	---	.00	.82	---	.01	1.5		.20
24	.75	---	.01	.91	9	.02	1.8		.30
25	.70	---	.00	.99	---	.01	2.0		.40
26	.70	---	.00	.91	---	.01	2.2		.40
27	.71	---	.00	.91	---	.01	2.0		.40
28	.66	---	.00	.99	---	.01	2.5		.50
29	.66	---	.00	---	---	---	2.8		.60
30	.66	---	.00	---	---	---	3.0		.60
31	.66	---	.00	---	---	---	3.2		.60

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCC, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3.4	---	.60	2.8	9	.07	1.0	61	.16
2	3.6	---	.60	2.8	32	.24	1.2	41	.13
3	3.8	---	.60	2.8	48	.36	1.6	40	.17
4	4.0	---	.60	2.8	56	.42	1.5	---	.17
5	4.0	---	.60	2.8	34	.26	1.5	---	.17
6	4.0	---	.60	2.9	23	.18	1.6	---	.17
7	4.0	---	.60	2.9	13	.10	1.8	---	.17
8	4.1	---	.60	2.9	22	.17	1.8	---	.16
9	4.1	---	.60	2.9	32	.25	1.8	---	.16
10	4.1	---	.60	2.9	30	.23	1.8	---	.16
11	4.6	---	.60	2.9	26	.20	1.8	---	.16
12	3.9	---	.60	2.9	27	.21	1.7	---	.16
13	4.3	---	.60	2.9	62	.49	1.7	---	.16
14	7.2	---	1.0	2.9	86	.67	1.1	---	.16
15	9.7	---	2.0	2.8	117	.88	.71	---	.10
16	7.5	---	1.0	2.7	82	.60	1.1	---	.16
17	10	---	2.0	2.6	77	.54	1.7	0	.00
18	10	---	2.0	2.5	62	.42	1.6	40	.17
19	9.4	---	2.0	2.4	61	.40	1.6	35	.15
20	8.3	---	1.5	2.3	56	.35	1.6	32	.14
21	7.0	---	1.0	2.2	55	.33	1.6	26	.11
22	6.1	---	1.0	2.2	58	.34	1.6	22	.10
23	5.0	57	.77	2.2	54	.32	1.5	20	.08
24	4.6	65	.81	2.2	72	.43	1.6	18	.08
25	4.5	51	.62	2.1	45	.26	1.7	21	.10
26	4.2	49	.56	2.0	55	.30	1.8	23	.11
27	4.0	43	.46	1.9	56	.29	2.1	22	.12
28	3.7	35	.35	1.8	54	.26	1.4	308	2.4
29	3.4	23	.21	1.8	47	.23	1.7	535	3.1
30	3.2	10	.09	1.8	53	.26	1.1	74	.22
31	---	---	---	1.1	85	.25	---	---	---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	1.2	18	.06	.41	3	.00	.50	3	.00
2	1.1	22	.07	.40	4	.00	.50	2	.00
3	.99	18	.05	.39	4	.00	.50	3	.00
4	.91	18	.04	.39	2	.00	.50	5	.00
5	.77	19	.04	.32	2	.00	.50	4	.00
6	.77	13	.03	.29	2	.00	.50	5	.00
7	.72	10	.02	.30	2	.00	.50	8	.01
8	.66	8	.01	.30	2	.00	.51	7	.00
9	.72	9	.02	.29	2	.00	.56	4	.00
10	1.1	26	.08	.38	2	.00	.72	8	.02
11	.77	8	.02	.53	2	.00	.82	6	.01
12	.82	12	.03	.47	4	.00	.66	6	.01
13	1.2	31	.13	.40	6	.00	.61	9	.01
14	.82	8	.02	.36	4	.00	.56	8	.01
15	.72	6	.01	.32	5	.00	.51	10	.01
16	.72	4	.00	.53	6	.00	.56	2	.00
17	1.1	26	.14	.49	6	.00	.56	10	.02
18	1.4	23	.10	.40	4	.00	.56	18	.03
19	.82	12	.03	.40	3	.00	.51	11	.02
20	.72	16	.03	.40	2	.00	.56	4	.00
21	.66	21	.04	.40	3	.00	.51	10	.01
22	.61	12	.02	.40	4	.00	.46	9	.01
23	.65	9	.02	.40	3	.00	.35	8	.00
24	.80	9	.02	.41	2	.00	.35	8	.00
25	.86	7	.02	.42	2	.00	.35	6	.00
26	.63	3	.00	.43	2	.00	.35	5	.00
27	.67	6	.01	.44	2	.00	.35	5	.00
28	.56	2	.00	.45	3	.00	.30	[illegible]	.00
29	.49	14	.02	.46	3	.00	.35	[illegible]	.00
30	.48	6	.00	.47	3	.00	.30	8	.00
31	.42	4	.00	.50	7	.00	---	---	---

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°33'18", long 107°58'56", in SW¼NE¼ sec.3, T.6 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 700 ft (213 m) downstream from first Anvil Creek and 4.2 mi (6.8 km) northwest of Anvil Points.

DRAINAGE AREA.--14.5 mi² (37.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,860 ft (2,396 m), from topographic map.

REMARKS.--Records good except those for winter period which are fair. No diversions or regulation.

AVERAGE DISCHARGE.--5 years, 6.89 ft³/s (0.195 m³/s), 4,990 acre-ft/yr (6.153 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft³/s (6.40 m³/s) May 22, 1979, gage height, 3.60 ft (1.097 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Aug. 9-11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s (0.74 m³/s) at 1700 Apr. 16, gage height, 2.13 ft (0.649 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	1.1	.81	.72	.91	.64	3.7	2.6	1.2	.62	.68
2	1.2	1.3	1.1	.76	.72	.91	1.5	3.9	2.2	1.4	.62	.51
3	1.2	1.2	1.1	.72	.72	.91	1.6	7.8	2.9	1.4	.55	.48
4	1.1	1.2	1.1	.72	.72	.97	1.2	6.3	4.0	1.4	.48	.44
5	1.1	1.2	1.1	.72	.72	.97	1.1	5.2	2.8	1.2	.43	.37
6	1.1	1.2	1.1	.72	.72	.91	1.7	6.2	2.5	1.0	.43	.44
7	1.1	1.3	1.1	.72	.72	.91	2.5	4.8	2.3	.97	.43	.51
8	1.1	1.2	1.0	.74	.72	.91	2.0	4.1	2.1	.91	.43	.45
9	1.1	1.2	1.0	.74	.72	.91	3.7	4.1	1.9	.95	.42	.47
10	1.1	1.1	1.0	.74	.63	.82	7.7	3.7	1.7	1.5	.43	.86
11	1.1	1.1	1.0	.74	.62	.81	7.6	3.8	1.4	1.1	.74	.70
12	1.3	1.3	1.0	.74	.62	.81	6.1	3.5	1.4	1.7	.70	.58
13	1.5	1.9	1.0	.74	.62	.81	5.8	3.1	1.4	1.3	.62	.52
14	1.8	1.4	1.0	.74	.71	.81	8.1	3.0	1.4	1.2	.62	.56
15	2.9	1.3	.87	.74	.72	.89	10	2.9	1.3	.97	1.7	.53
16	2.0	1.3	.81	.74	.72	1.1	12	3.0	1.4	.81	2.3	.47
17	1.9	1.3	.81	.72	.72	1.0	13	3.2	1.3	1.0	2.1	.47
18	1.8	1.3	.81	.72	.72	.93	11	3.1	1.2	1.4	.95	.43
19	1.7	1.3	.81	.72	.72	.91	12	2.7	1.2	1.1	.75	.40
20	1.8	1.3	.81	.72	.81	.82	9.0	2.6	1.1	.85	.53	.39
21	1.7	1.3	.81	.72	.81	.81	7.2	3.0	1.1	.69	.49	.39
22	1.6	.95	.81	.72	.81	.81	5.9	3.3	1.1	.69	.48	.34
23	1.5	.81	.81	.74	.81	.94	5.5	3.4	1.1	.65	.48	.34
24	1.2	.95	.81	.74	.84	1.1	5.6	2.9	1.1	.95	.48	.34
25	1.4	1.0	.81	.76	.91	1.1	5.6	2.7	1.0	.99	.43	.34
26	1.3	1.0	.81	.76	.91	1.3	5.4	2.6	1.0	.91	.43	.34
27	1.4	1.1	.81	.76	.91	1.7	5.0	2.7	1.3	.81	.45	.34
28	1.3	1.1	.81	.76	.91	1.2	4.6	2.5	3.0	.73	.48	.33
29	1.5	1.1	.81	.74	---	1.1	4.1	2.8	3.1	.71	.48	.30
30	1.5	1.1	.81	.72	---	1.2	4.0	2.6	1.5	.62	.70	.30
31	1.2	---	.81	.68	---	.75	---	2.7	---	.63	1.2	---
TOTAL	44.6	36.01	28.53	22.81	21.00	30.03	171.14	111.9	53.4	31.74	21.95	13.62
MEAN	1.44	1.20	.92	.74	.75	.97	5.70	3.61	1.78	1.02	.71	.45
MAX	2.9	1.9	1.1	.81	.91	1.7	13	7.8	4.0	1.7	2.3	.86
MIN	1.1	.81	.81	.68	.62	.75	.64	2.5	1.0	.62	.42	.30
AC-FT	88	71	57	45	42	60	339	222	106	63	44	27

CAL YR 1980 TOTAL 4275.97 MEAN 11.7 MAX 136 MIN .81 AC-FT 8480
WTR YR 1981 TOTAL 586.73 MEAN 1.61 MAX 13 MIN .30 AC-FT 1160

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT												
03...	1400	1.1	470	--	8.1	7.5	9.0	240	59	23	23	.6
NOV												
05...	1500	1.2	470	--	8.2	3.0	--	230	55	22	21	.6
DEC												
04...	1400	1.1	460	530	8.2	2.5	10.0	250	62	24	24	.7
18...	1400	.96	500	552	8.2	1.5	--	250	61	23	23	.6
JAN												
28...	1100	.78	530	537	--	.0	--	250	61	23	22	.6
APR												
14...	1010	3.6	445	424	8.1	11.0	--	200	50	18	18	.6
22...	0930	5.4	410	421	8.2	3.0	9.8	200	51	18	18	.6
MAY												
07...	1400	4.5	420	448	8.2	9.0	--	220	54	20	19	.6
JUN												
02...	1600	2.0	440	474	8.2	15.5	7.2	230	56	21	21	.6
JUL												
07...	1600	.98	440	496	8.3	19.0	6.8	230	56	22	21	.6
AUG												
04...	1400	.43	525	539	8.8	16.0	9.0	230	57	22	22	.7
SEP												
28...	1700	.36	470	604	8.6	12.3	7.8	260	64	24	22	.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT												
03...	.7	260	24	1.4	.2	15	304	.41	.92	.10	.070	5
NOV												
05...	.6	260	25	1.3	.2	13	296	.40	.98	.17	.030	4
DEC												
04...	1.0	270	24	1.9	.2	14	316	.43	.94	.47	.040	4
18...	.6	270	27	2.5	.1	14	318	.43	.82	.77	.050	3
JAN												
28...	.4	270	26	1.3	.2	13	313	.43	.66	.57	.010	3
APR												
14...	.8	200	23	1.2	.2	13	248	.34	2.5	.64	.000	2
22...	.6	200	23	1.1	.2	14	250	.34	3.6	.82	.030	4
MAY												
07...	.6	250	24	1.0	.2	14	285	.39	3.5	.37	.020	5
JUN												
02...	.9	240	25	1.5	.1	16	288	.39	1.6	.30	.000	4
JUL												
07...	.9	250	1.6	1.3	.1	19	274	.37	.73	.16	.030	4
AUG												
04...	.9	270	1.0	3.5	.5	18	289	.39	.34	.14	<.010	6
SEP												
28...	.9	270	21	1.3	.2	17	314	.43	.31	.08	.060	4

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
03...	90	60	<1	2	<10	4	8	2	.0	0	700	3
NOV												
05...	80	40	<1	3	<10	1	<4	<1	.0	0	620	<3
DEC												
04...	80	60	<1	2	<10	1	<4	<1	.0	1	680	9
18...	80	30	2	0	10	0	7	1	.0	0	680	5
JAN												
28...	70	30	0	0	20	4	5	1	.0	1	640	7
APR												
14...	100	30	<1	3	30	0	7	2	.1	1	540	20
22...	60	30	<1	2	10	0	5	4	.0	1	520	30
MAY												
07...	80	30	<1	2	<10	4	7	2	.0	0	580	8
JUN												
02...	80	30	<1	2	<10	0	20	3	.0	1	620	<3
JUL												
07...	200	220	<1	3	<10	2	10	2	.1	0	650	5
AUG												
04...	90	30	<1	2	<10	5	16	<1	.1	0	670	<3
SEP												
28...	92	50	<1	1	<10	2	8	5	.1	0	720	99

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO

LOCATION.--Lat 39°34'03", long 108°01'14", in SE¼NW¼ sec.35, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.3 mi (0.8 km) below East Fork Falls and 6.4 mi (10.3 km) northwest of Rulison.

DRAINAGE AREA.--20.4 mi² (52.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,880 ft (2,100 m), from topographic map. Since Apr. 25, 1980, supplementary water-stage recorder 1,000 ft (305 m) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Daily discharge determined from supplementary gage and adjusted for difference in flow between sites.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174 ft³/s (4.93 m³/s) May 11, 1980, gage height, 2.87 ft (0.875 m); maximum gage height, 3.49 ft (1.064 m), May 17, 1978, site and datum then in use; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s (0.45 m³/s) at 1900 Apr. 17, on basis of computation of peak flow at supplementary gage and adjusted for difference in flow between sites. No peak above base of 100 ft³/s (2.8 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	.90	.37	.00	.00	.00	.00	2.4	2.2	.73	.00	.00
2	.69	1.0	.37	.00	.00	.00	.00	2.4	1.9	.87	.00	.00
3	.75	.90	.37	.00	.00	.00	.00	7.7	2.6	.73	.00	.00
4	.84	.90	.37	.00	.00	.00	.00	6.0	3.4	.58	.00	.00
5	1.1	.93	.37	.00	.00	.00	.00	3.7	2.3	.42	.00	.00
6	1.2	1.1	.37	.00	.00	.00	.00	5.3	2.1	.38	.00	.00
7	1.2	1.1	.37	.00	.00	.00	.00	3.7	1.9	.26	.00	.00
8	1.3	1.1	.33	.00	.00	.00	.00	3.5	1.7	.23	.00	.00
9	1.3	1.1	.33	.00	.00	.00	.00	3.5	1.3	.28	.00	.16
10	1.3	1.1	.33	.00	.00	.00	1.5	3.1	.88	.77	.00	.29
11	1.3	1.0	.33	.00	.21	.00	2.7	3.3	.78	.44	.00	.23
12	1.6	1.2	.33	.00	.21	.00	2.4	2.9	.74	.77	.00	.00
13	1.9	1.7	.33	.00	.21	.00	.67	2.8	.78	.68	.00	.00
14	2.0	1.1	.00	.00	.00	.00	1.6	2.4	.97	.36	.00	.00
15	3.2	.90	.29	.00	.00	.00	5.1	2.2	1.1	.23	.00	.00
16	2.4	.60	.27	.00	.00	.00	7.9	2.6	.97	.13	.75	.00
17	2.4	.43	.27	.00	.00	.00	9.6	3.0	.77	.26	.70	.00
18	2.3	.00	.00	.00	.00	.00	9.6	2.8	.74	.49	.00	.00
19	1.9	.00	.27	.00	.00	.00	10	2.3	.63	.20	.00	.00
20	2.4	.00	.00	.00	.00	.00	8.2	2.3	.58	.28	.00	.00
21	2.3	.00	.00	.00	.00	.00	6.3	3.0	.49	.23	.00	.00
22	2.0	.00	.00	.00	.00	.00	5.1	3.0	.49	.23	.00	.00
23	1.8	.00	.00	.00	.00	.00	4.9	3.1	.39	.22	.00	.00
24	1.3	.32	.00	.00	.00	.00	4.7	2.6	.31	.32	.00	.00
25	1.1	.33	.00	.00	.00	.00	4.7	2.3	.23	.33	.00	.00
26	1.0	.33	.00	.00	.00	.00	4.2	2.0	.18	.30	.00	.00
27	1.1	.37	.00	.00	.00	.00	4.0	2.3	.36	.27	.00	.00
28	1.0	.37	.00	.00	.00	.00	3.3	2.1	1.7	.24	.00	.00
29	1.3	.37	.00	.00	---	.00	2.8	2.3	2.3	.24	.00	.00
30	1.3	.37	.00	.00	---	.00	2.8	2.2	.96	.21	.00	.00
31	.90	---	.00	.00	---	.00	---	2.3	---	.00	.00	---
TOTAL	47.02	19.52	5.67	.00	.63	.00	102.07	95.1	35.75	11.68	1.45	.68
MEAN	1.52	.65	.18	.000	.023	.000	3.40	3.07	1.19	.38	.047	.023
MAX	3.2	1.7	.37	.00	.21	.00	10	7.7	3.4	.87	.75	.29
MIN	.69	.00	.00	.00	.00	.00	.00	2.0	.18	.00	.00	.00
AC-FT	93	39	11	.00	1.2	.00	202	189	71	23	2.9	1.3

CAL YR 1980 TOTAL 4461.49 MEAN 12.2 MAX 161 MIN .00 AC-FT 8850
WTR YR 1981 TOTAL 319.57 MEAN .88 MAX 10 MIN .00 AC-FT 634

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 10.

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since December 1976.

REMARKS.--Daily maximum and minimum specific-conductance data available in District Office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 620 micromhos Feb. 13, 1981; minimum, 97 micromhos Dec. 18, 1981.
WATER TEMPERATURES: Maximum, 20.50°C June 26, 1981; minimum, 0.0°C several days during year.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,680 mg/L May 17, 1978; minimum daily, 1 mg/L July 29, 1981.
SEDIMENT LOADS: Maximum daily, 485 tons (440 t) May 17, 1978; minimum daily, 0.01 ton (0.01 t) on many days during 1978 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 620 micromhos Feb. 13; minimum, 97 micromhos Dec. 18.
WATER TEMPERATURES: Maximum, 20.5°C June 26, July 10; minimum 0.0°C many days during October to April.
SEDIMENT CONCENTRATIONS: Maximum daily, 397 mg/L June 28, 1981; minimum daily, 1 mg/L July 29, 1981.
SEDIMENT LOADS: Maximum daily, 1.7 tons (1.5 t) April 17, 1981; minimum daily, .01 ton (0.01 t) on many days during 1981 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT												
02...	1400	.51	480	501	8.4	4.0	--	230	55	23	25	.7
NOV												
12...	1500	.66	440	483	8.6	4.5	10.3	220	52	22	23	.7
DEC												
01...	1500	.37	440	527	8.4	1.0	10.6	240	56	23	25	.7
MAR												
04...	1100	.83	490	522	8.1	1.0	--	250	61	23	21	.6
APR												
17...	1500	6.7	350	505	8.3	8.5	9.7	180	44	16	18	.6
27...	1200	3.9	--	--	--	8.5	--	--	--	--	--	--
MAY												
05...	1200	3.9	--	--	--	6.5	--	--	--	--	--	--
05...	1400	3.9	420	436	8.7	6.5	8.3	210	51	20	22	.7
27...	1400	1.5	420	453	8.6	11.0	8.2	210	51	20	22	.7
28...	1300	2.1	--	--	--	1.1	--	--	--	--	--	--
JUN												
10...	1130	1.2	--	--	--	11.5	--	--	--	--	--	--
10...	1400	.84	450	467	8.4	11.5	--	220	54	21	23	.7
30...	1330	1.0	--	--	--	15.0	--	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT												
02...	.8	250	30	1.5	.2	15	302	.41	.42	.00	.050	4
NOV												
12...	.7	240	28	1.4	.2	12	285	.39	.51	.14	.000	5
DEC												
01...	.7	260	32	1.4	.2	13	310	.42	.31	.36	.030	4
MAR												
04...	.5	260	27	1.4	.2	13	307	.42	.69	.72	.030	5
APR												
17...	.8	180	27	--	.2	13	--	--	--	.68	.000	4
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	1.2	250	.7	1.2	.2	14	262	.36	2.8	.17	.020	5
27...	.8	230	28	1.1	.2	14	276	.38	1.1	.06	.060	4
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	.8	240	7.6	1.0	.1	17	271	.37	.61	.18	.030	6
30...	--	--	--	--	--	--	--	--	--	--	--	--

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
02...	80	50	2	0	<10	1	8	<1	.0	0	740	<3
NOV												
12...	70	20	<1	3	<10	1	5	<1	.0	0	660	<3
DEC												
01...	80	70	<1	1	<10	0	8	<1	.0	1	730	<3
MAR												
04...	80	30	<1	22	10	1	6	2	.0	1	630	10
APR												
17...	100	30	<1	3	40	0	6	2	.0	1	500	8
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	70	40	<1	2	10	5	8	2	.1	1	590	6
27...	70	30	<1	4	<10	1	5	1	.4	1	630	10
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	300	40	<1	3	10	2	10	1	.2	0	660	10
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR				
17...	1500	6.7	61	1.1
27...	1200	3.9	5	.05
MAY				
05...	1200	3.9	4	.04
28...	1300	2.1	8	.05

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN				
10...	1130	1.2	10	.03
30...	1330	1.0	16	.04

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	487	485	446		---		---	400	429	440	---	---
2	480	489	464		---		---	402	430	435	---	---
3	470	480	462		---		---	405	424	436	---	---
4	470	469	463		---		148	415	425	434	---	---
5	471	471	464		---		265	423	428	432	---	---
6	472	470	475		---		438	415	429	434	---	---
7	478	467	474		---		---	424	430	434	---	---
8	480	469	481		---		---	425	430	437	---	---
9	481	474	491		---		---	422	429	429	---	374
10	481	474	490		---		333	422	432	430	---	387
11	481	473	372		550		337	420	435	426	---	452
12	476	461	447		591		346	417	435	436	---	---
13	476	454	131		596		354	419	436	430	---	---
14	469	472	---		---		348	420	435	424	---	---
15	458	415	164		---		333	420	433	426	---	---
16	460	431	188		---		337	415	434	427	456	---
17	461	445	102		---		348	415	433	431	446	---
18	470	---	---		---		351	415	431	429	---	---
19	475	---	101		---		357	416	432	427	---	---
20	476	---	---		---		363	414	432	431	---	---
21	477	---	---		---		377	415	434	428	---	---
22	479	---	---		---		381	416	435	429	---	---
23	501	---	---		---		387	418	433	426	---	---
24	517	184	---		---		388	420	434	431	---	---
25	520	301	---		---		388	419	438	430	---	---
26	496	347	---		---		387	420	436	427	---	---
27	475	386	---		---		391	422	438	429	---	---
28	490	402	---		---		397	427	423	431	---	---
29	502	419	---		---		401	0	406	431	---	---
30	492	434	---		---		396	427	421	427	---	---
31	481	---	---		---		---	424	---	---	---	---

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	3.5	.0	.0	.0	.0			---	---		
2	6.5	2.0	.0	.0	.0	.0			---	---		
3	6.5	1.5	.0	.0	.0	.0			---	---		
4	6.5	2.0	.5	.0	.0	.0			---	---		
5	7.0	2.0	1.0	.0	.0	.0			---	---		
6	7.0	3.5	2.0	.0	.0	.0			---	---		
7	7.0	2.5	2.0	.5	.0	.0			---	---		
8	7.0	3.0	1.5	.0	.0	.0			---	---		
9	6.5	2.5	1.5	.0	.0	.0			---	---		
10	5.5	1.0	2.0	.0	.0	.0			---	---		
11	6.0	1.0	2.5	.0	.0	.0			.0	.0		
12	7.0	2.0	4.0	.0	.0	.0			.0	.0		
13	8.0	6.0	2.5	.0	.0	.0			.0	.0		
14	7.0	5.0	.0	.0	.0	.0			---	---		
15	4.5	1.0	.0	.0	.0	.0			---	---		
16	1.0	.0	.0	.0	.0	.0			---	---		
17	2.0	.0	.0	.0	.0	.0			---	---		
18	2.5	.0	---	---	.0	.0			---	---		
19	1.0	.0	---	---	.0	.0			---	---		
20	1.0	.0	---	---	---	---			---	---		
21	1.0	.0	---	---	---	---			---	---		
22	2.0	.0	---	---	---	---			---	---		
23	.0	.0	---	---	---	---			---	---		
24	.0	.0	.0	.0	---	---			---	---		
25	.0	.0	.0	.0	---	---			---	---		
26	.0	.0	.0	.0	---	---			---	---		
27	.0	.0	.0	.0	---	---			---	---		
28	.0	.0	.0	.0	---	---			---	---		
29	.0	.0	.0	.0	---	---			---	---		
30	.0	.0	.0	.0	---	---			---	---		
31	.0	.0	---	---	---	---			---	---		

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	12.5	5.0	14.0	6.0	15.5	13.5	---	---	---	---
2	---	---	12.5	6.5	15.0	6.5	18.0	14.0	---	---	---	---
3	---	---	8.0	5.0	12.5	9.0	16.5	10.5	---	---	---	---
4	.0	.0	10.5	3.0	15.0	7.0	18.5	9.5	---	---	---	---
5	.0	.0	10.0	3.0	16.5	7.0	19.5	10.5	---	---	---	---
6	.0	.0	9.5	4.5	18.0	8.0	19.5	10.5	---	---	---	---
7	---	---	7.5	1.0	17.5	10.0	20.0	12.5	---	---	---	---
8	---	---	3.5	1.5	18.0	9.0	18.0	12.5	---	---	---	---
9	---	---	6.5	2.0	18.0	9.5	19.0	13.0	---	---	12.5	11.0
10	.5	.0	9.0	1.0	19.0	10.0	20.5	11.5	---	---	12.5	10.0
11	1.0	.0	6.5	2.5	19.0	9.0	20.0	13.0	---	---	9.5	9.0
12	3.0	.0	6.5	2.5	16.0	8.0	19.5	14.0	---	---	---	---
13	4.5	1.0	8.5	.5	15.0	8.5	17.5	14.5	---	---	---	---
14	6.5	.0	11.5	2.0	8.5	3.5	19.0	13.5	---	---	---	---
15	5.5	2.5	9.0	4.0	10.5	1.0	18.0	11.5	---	---	---	---
16	8.0	1.5	7.5	5.0	13.0	2.0	15.5	13.0	15.0	10.5	---	---
17	8.0	1.5	6.5	4.0	15.5	5.5	15.5	12.5	15.5	9.0	---	---
18	8.0	2.5	9.5	5.0	14.0	5.0	18.5	12.0	---	---	---	---
19	7.5	3.0	11.0	5.0	17.0	6.0	18.5	11.5	---	---	---	---
20	5.0	2.0	8.0	3.5	18.0	8.0	17.5	9.5	---	---	---	---
21	7.0	.5	6.5	2.5	18.0	8.5	17.5	10.5	---	---	---	---
22	6.5	1.0	8.0	4.0	18.0	8.5	17.5	11.5	---	---	---	---
23	9.0	.5	11.0	4.5	18.5	9.0	19.5	11.5	---	---	---	---
24	9.5	2.5	11.0	4.0	18.5	10.0	18.5	11.0	---	---	---	---
25	11.5	3.0	12.5	6.5	18.5	9.5	18.5	12.0	---	---	---	---
26	10.5	2.5	13.5	7.5	20.5	11.0	18.0	12.0	---	---	---	---
27	10.5	3.0	14.5	8.5	19.5	13.5	16.0	10.5	---	---	---	---
28	11.5	2.5	14.0	9.0	18.0	13.0	15.0	9.5	---	---	---	---
29	13.0	3.0	11.0	7.5	17.5	10.5	16.5	10.5	---	---	---	---
30	12.5	4.0	14.0	6.5	20.0	10.5	19.5	11.5	---	---	---	---
31	---	---	11.5	9.0	---	---	---	---	---	---	---	---

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.84		.05	.90		.05	.37		.02
2	.69		.05	1.0		.06	.37		.02
3	.75		.04	.90		.05	.37		.02
4	.84		.05	.90		.05	.37		.02
5	1.1		.06	.93		.05	.37		.02
6	1.2		.06	1.1		.06	.37		.02
7	1.2		.06	1.1		.06	.37		.02
8	1.3		.06	1.1		.06	.33		.01
9	1.3		.06	1.1		.06	.33		.01
10	1.3		.06	1.1		.06	.33		.01
11	1.3		.06	1.0		.06	.33		.01
12	1.6		.07	1.2		.06	.33		.01
13	1.9		.08	1.7		.07	.33		.01
14	2.0		.08	1.1		.06	.00		---
15	3.2		.12	.90		.05	.29		.01
16	2.4		.09	.60		.04	.27		.01
17	2.4		.09	.43		.04	.27		.01
18	2.3		.09	.00		---	.00		---
19	1.9		.08	.00		---	.27		.01
20	2.4		.09	.00		---	.00		---
21	2.3		.09	.00		---	.00		---
22	2.0		.08	.00		---	.00		---
23	1.8		.08	.00		---	.00		---
24	1.3		.06	.32		.01	.00		---
25	1.1		.06	.33		.01	.00		---
26	1.0		.06	.33		.01	.00		---
27	1.1		.06	.37		.02	.00		---
28	1.0		.06	.37		.02	.00		---
29	1.3		.06	.37		.02	.00		---
30	1.3		.06	.37		.02	.00		---
31	.90		.05	---			.00		---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00		---	.00		
2	.00			.00		---	.00		
3	.00			.00		---	.00		
4	.00			.00		---	.00		
5	.00			.00		---	.00		
6	.00			.00		---	.00		
7	.00			.00		---	.00		
8	.00			.00		---	.00		
9	.00			.00		---	.00		
10	.00			.00		---	.00		
11	.00			.21		.02	.00		
12	.00			.21		.02	.00		
13	.00			.21		.02	.00		
14	.00			.00		---	.00		
15	.00			.00		---	.00		
16	.00			.00		---	.00		
17	.00			.00		---	.00		
18	.00			.00		---	.00		
19	.00			.00		---	.00		
20	.00			.00		---	.00		
21	.00			.00		---	.00		
22	.00			.00		---	.00		
23	.00			.00		---	.00		
24	.00			.00		---	.00		
25	.00			.00		---	.00		
26	.00			.00		---	.00		
27	.00			.00		---	.00		
28	.00			.00		---	.00		
29	.00			---			.00		
30	.00			---			.00		
31	.00			---			.00		

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	---	---	2.4	2	.01	2.2	12	.07
2	.00	---	---	2.4	5	.03	1.9	13	.07
3	.00	---	---	7.7	54	1.1	2.6	10	.07
4	.00	---	---	6.0	10	.02	3.4	18	.16
5	.00	---	---	3.7	2	.02	2.3	10	.06
6	.00	---	---	5.3	3	.05	2.1	12	.07
7	.00	---	---	3.7	3	.03	1.9	10	.05
8	.00	---	---	3.5	4	.04	1.7	7	.03
9	.00	---	---	3.5	4	.03	1.3	6	.02
10	1.5	---	.03	3.1	3	.02	.88	14	.03
11	2.7	---	1.6	3.3	3	.02	.78	22	.05
12	2.4	---	1.5	2.9	3	.02	.74	17	.03
13	.67	---	.02	2.8	4	.03	.78	31	.06
14	1.6	---	.06	2.4	4	.02	.97	28	.07
15	5.1	---	.95	2.2	3	.02	1.1	20	.06
16	7.9	---	1.1	2.6	3	.02	.97	14	.04
17	9.6	65	1.7	3.0	4	.03	.77	20	.04
18	9.6	48	1.2	2.8	3	.02	.74	17	.03
19	10	32	.86	2.3	2	.01	.63	8	.01
20	8.2	23	.51	2.3	3	.02	.58	10	.02
21	6.3	18	.31	3.0	4	.03	.49	10	.01
22	5.1	13	.18	3.0	4	.03	.49	11	.01
23	4.9	11	.15	3.1	8	.06	.39	13	.01
24	4.7	22	.28	2.6	6	.04	.31	13	.01
25	4.7	15	.19	2.3	7	.04	.23	13	.01
26	4.2	8	.08	2.0	7	.04	.18	14	.01
27	4.0	5	.05	2.3	8	.05	.36	21	.02
28	3.3	5	.04	2.1	10	.05	1.7	397	1.5
29	2.8	4	.03	2.3	29	.18	2.3	241	1.5
30	2.8	6	.05	2.2	13	.08	.96	32	.08
31	---	---	---	2.3	7	.04	---	---	---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.73	18	.04	.00		---	.00		---
2	.87	16	.04	.00		---	.00		---
3	.73	12	.02	.00		---	.00		---
4	.58	45	.07	.00		---	.00		---
5	.42	33	.04	.00		---	.00		---
6	.38	24	.02	.00		---	.00		---
7	.26	12	.01	.00		---	.00		---
8	.23	16	.01	.00		---	.00		---
9	.28	9	.01	.00		---	.16		.01
10	.77	9	.02	.00		---	.29		.03
11	.44	8	.01	.00		---	.23		.02
12	.77	12	.02	.00		---	.00		---
13	.68	9	.02	.00		---	.00		---
14	.36	5	.01	.00		---	.00		---
15	.23	4	.01	.00		---	.00		---
16	.13	5	.01	.75		.04	.00		---
17	.26	9	.01	.70		.04	.00		---
18	.49	6	.01	.00		---	.00		---
19	.20	5	.01	.00		---	.00		---
20	.28	6	.01	.00		---	.00		---
21	.23	6	.01	.00		---	.00		---
22	.23	4	.01	.00		---	.00		---
23	.22	6	.01	.00		---	.00		---
24	.32	4	.01	.00		---	.00		---
25	.33	8	.01	.00		---	.00		---
26	.30	10	.01	.00		---	.00		---
27	.27	4	.01	.00		---	.00		---
28	.24	2	.01	.00		---	.00		---
29	.24	1	.01	.00		---	.00		---
30	.21	3	.01	.00		---	.00		---
31	.00	---	---	.00		---	---		

09092980 BEN GOOD CREEK NEAR RULISON, CO

LOCATION.--Lat 39°35'25", long 108°02'26", in NE¼NW¼ sec.27, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.2 mi (0.3 km) upstream from East Fork Parachute Creek and 8.3 mi (13.4 km) northwest of Rulison.

DRAINAGE AREA.--4.04 mi² (10.46 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft (1,990 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are fair. No regulation or diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft³/s (0.37 m³/s) May 7, 1980, gage height, 2.78 ft (0.847 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.4 ft³/s (0.096 m³/s) at 2300 June 28, gage height, 2.24 ft (0.683 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.09	.02	.01	.00	.00	.00	.09	.09	.11	.04	.01
2	.13	.09	.02	.01	.00	.00	.00	.10	.08	.12	.03	.00
3	.13	.10	.02	.01	.00	.00	.00	.14	.09	.12	.03	.00
4	.12	.10	.03	.01	.00	.00	.00	.12	.09	.11	.03	.00
5	.12	.10	.03	.01	.00	.00	.01	.10	.08	.10	.02	.00
6	.12	.09	.04	.00	.00	.00	.01	.12	.07	.09	.03	.01
7	.11	.09	.04	.00	.00	.00	.01	.10	.07	.09	.03	.01
8	.11	.09	.04	.00	.00	.00	.01	.10	.07	.08	.03	.00
9	.11	.09	.03	.00	.00	.00	.02	.11	.06	.09	.03	.00
10	.11	.09	.03	.00	.00	.00	.02	.11	.06	.09	.05	.00
11	.11	.09	.02	.00	.00	.00	.03	.11	.06	.08	.05	.00
12	.12	.09	.02	.00	.00	.00	.04	.11	.06	.10	.05	.00
13	.12	.10	.01	.00	.00	.00	.07	.11	.06	.11	.04	.00
14	.12	.09	.01	.00	.00	.00	.10	.11	.07	.09	.03	.00
15	.11	.09	.01	.00	.00	.00	.15	.10	.08	.08	.04	.00
16	.10	.09	.00	.00	.00	.00	.07	.12	.08	.08	.04	.00
17	.10	.09	.00	.00	.00	.00	.07	.12	.07	.08	.03	.00
18	.10	.09	.00	.00	.00	.00	.06	.12	.07	.08	.02	.00
19	.10	.07	.00	.00	.00	.00	.05	.11	.07	.07	.02	.00
20	.10	.02	.00	.00	.00	.00	.06	.10	.07	.07	.01	.00
21	.10	.01	.00	.00	.00	.00	.07	.11	.07	.06	.02	.00
22	.10	.01	.00	.00	.00	.00	.07	.11	.07	.06	.02	.00
23	.09	.01	.00	.00	.00	.00	.07	.10	.07	.07	.02	.00
24	.09	.02	.01	.00	.00	.00	.08	.10	.07	.07	.02	.00
25	.09	.02	.01	.00	.00	.00	.08	.09	.07	.07	.02	.00
26	.09	.02	.01	.00	.00	.00	.08	.09	.07	.06	.01	.00
27	.09	.02	.01	.00	.00	.00	.08	.08	.08	.06	.01	.00
28	.09	.02	.01	.00	.00	.00	.09	.08	.25	.06	.01	.00
29	.09	.02	.01	.00	---	.00	.09	.09	.21	.06	.01	.00
30	.09	.02	.01	.00	---	.00	.09	.09	.14	.05	.02	.00
31	.09	---	.00	.00	---	.00	---	.09	---	.04	.01	---
TOTAL	3.28	1.92	.44	.05	.00	.00	1.58	3.23	2.55	2.50	.82	.03
MEAN	.11	.064	.014	.002	.000	.000	.053	.10	.085	.081	.026	.001
MAX	.13	.10	.04	.01	.00	.00	.15	.14	.25	.12	.05	.01
MIN	.09	.01	.00	.00	.00	.00	.00	.08	.06	.04	.01	.00
AC-FT	6.5	3.8	.9	.10	.00	.00	3.1	6.4	5.1	5.0	1.6	.06

CAL YR 1980 TOTAL 391.31 MEAN 1.07 MAX 11 MIN .00 AC-FT 776
WTR YR 1981 TOTAL 16.40 MEAN .045 MAX .25 MIN .00 AC-FT 33

NOTE.--NO GAGE-HEIGHT RECORD JAN. 7 TO APR. 14.

09092980 BEN GOOD CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
OCT 06...	1440	.10	580	597	8.4	11.0	8.2	230	47	28	51	1.5
NOV 12...	1300	.09	560	540	8.4	7.5	10.2	220	44	26	49	1.4
DEC 01...	1200	.02	590	495	8.3	2.0	10.4	210	68	10	19	.6
JAN 02...	1330	.13	520	612	8.3	2.0	11.6	220	46	26	52	1.5
APR 16...	1300	.04	540	624	8.4	7.5	9.4	230	50	25	49	1.4
MAY 27...	1100	.09	560	591	8.3	10.0	8.8	230	48	26	50	1.4
JUN 09...	1300	.06	560	582	8.4	13.5	7.8	210	43	25	49	1.5
JUL 30...	1200	.04	572	582	9.1	12.4	6.6	210	37	27	53	1.8
AUG 27...	1100	.01	588	594	8.5	12.0	6.4	230	46	27	53	1.7

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 06...	1.0	250	93	3.1	.5	19	395	.54	.11	.06	.030	2
NOV 12...	1.2	260	63	3.3	.6	17	362	.49	.09	.02	.000	3
DEC 01...	8.2	210	41	14	.3	35	328	.45	.02	1.3	.250	4
JAN 02...	1.5	250	67	1.5	.6	17	364	.50	.13	.21	.020	3
APR 16...	1.9	260	60	12	.6	18	375	.51	.04	.16	.000	2
MAY 27...	.9	270	61	2.7	.5	18	372	.51	.09	.21	.050	2
JUN 09...	1.0	260	59	2.9	.5	18	356	.48	.06	.01	--	3
JUL 30...	1.2	240	65	3.0	.5	20	353	.48	.04	.10	.030	4
AUG 27...	1.0	260	68	3.1	.5	21	379	.52	.01	.33	.010	3

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 06...	90	90	<1	0	<10	5	20	<1	.0	0	1400	<3
NOV 12...	80	60	<1	0	<10	1	20	<1	.0	0	1300	<3
DEC 01...	200	90	1	2	10	0	20	50	.0	3	360	20
JAN 02...	90	90	<1	10	10	7	20	<1	.2	0	1300	8
APR 16...	100	90	<1	2	20	2	20	1	.0	0	1300	5
MAY 27...	80	80	<1	2	<10	2	20	<1	.3	0	1400	6
JUN 09...	100	90	<1	2	<10	7	20	<1	.0	0	1400	3
JUL 30...	90	100	<1	1	<10	0	21	2	.6	1	1300	10
AUG 27...	90	100	<1	0	<10	0	22	3	.0	0	1400	60

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO

LOCATION.--Lat 39°34'02", long 108°06'37", in SE¼SE¼ sec.36, T.5 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.3 mi (0.5 km) upstream from Gardner Gulch, 0.6 mi (1.0 km) downstream from confluence of West and East Forks, and 8.5 mi (13.7 km) north of Grand Valley.

DRAINAGE AREA.--141 mi^2 (365 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to September 1954, October 1964 to September 1970, April 1975 to current year. Prior to October 1979, published as near Grand Valley.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft (1,747 m), from topographic map. Prior to Apr. 1, 1975, at sites 0.4 mi (0.6 km) downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of about 75 acres (304,000 m^2) above station. One diversion from East Fork bypasses station for irrigation of about 100 acres (405,000 m^2) below station.

AVERAGE DISCHARGE.--18 years (water years 1949-54, 1965-70, 1976-81), 20.6 ft^3/s (0.583 m^3/s), 14,920 acre-ft/yr (18.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft^3/s (65.4 m^3/s) Aug. 19, 1977, gage height, 6.11 ft (1.862 m), from highwater mark, from rating curve extended above 150 ft^3/s (4.2 m^3/s), on basis of slope-area measurements at gage heights 4.25 ft (1.295 m) and 6.11 ft (1.862 m); no flow Dec. 2, 1948, many days 1964-67 and 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53 ft^3/s (1.50 m^3/s) at 1830 Sept. 10, gage height, 2.74 ft (0.835 m), from peak stage indicator, no peak above base of 150 ft^3/s (4.2 m^3/s), maximum gage height 2.75 ft (0.838 m) at 1030 July 12; minimum daily discharge, 2.1 ft^3/s (0.059 m^3/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	6.4	5.1	5.2	4.3	3.3	7.7	12	12	7.3	4.3	3.1
2	9.1	6.5	5.1	5.1	4.0	3.4	8.8	12	11	7.2	4.2	2.8
3	9.2	6.6	5.2	5.1	3.7	3.2	9.5	17	13	7.5	3.2	3.0
4	8.8	7.0	5.2	5.0	3.8	3.2	8.3	17	13	7.3	3.2	2.9
5	8.6	6.8	5.2	5.1	4.1	3.3	7.6	14	12	7.1	3.3	3.2
6	8.2	6.7	5.2	5.0	3.8	3.4	8.7	15	12	5.7	3.1	3.9
7	7.9	6.9	5.2	5.1	3.8	3.4	10	13	11	5.8	2.8	4.8
8	7.7	6.7	5.0	4.9	3.8	3.5	9.7	13	11	5.6	3.0	4.9
9	7.4	6.9	5.1	4.9	3.7	3.5	13	13	11	6.1	3.4	4.1
10	7.2	6.7	5.0	4.8	3.7	3.7	19	13	11	7.3	3.5	8.3
11	7.5	6.8	4.8	4.9	3.5	3.8	21	13	9.9	7.1	3.7	6.0
12	7.7	6.8	4.9	4.9	3.4	3.8	19	12	9.7	9.9	2.8	4.8
13	7.8	7.7	4.9	4.7	3.4	3.9	18	12	9.5	8.6	3.3	5.6
14	8.0	7.1	4.9	4.6	3.5	3.7	20	11	9.7	6.1	3.1	5.0
15	10	5.7	4.9	4.6	3.5	3.9	24	11	9.4	5.5	5.1	4.9
16	10	5.3	4.9	4.6	3.5	4.4	26	12	9.0	5.9	4.9	4.5
17	9.9	5.2	5.1	4.6	3.5	4.7	25	12	8.7	7.1	2.7	4.6
18	9.2	4.9	5.2	4.6	3.4	4.3	24	12	8.3	7.7	2.3	4.6
19	8.9	4.8	5.2	4.6	3.4	4.4	23	11	8.3	6.9	2.4	4.9
20	8.6	4.7	5.2	4.5	3.4	4.5	21	12	8.0	5.6	2.2	5.0
21	8.2	4.6	5.2	4.6	3.5	4.8	19	13	7.8	4.9	2.2	5.0
22	8.1	4.6	5.2	4.5	3.3	4.8	18	13	7.2	5.1	2.7	4.6
23	7.6	4.6	5.2	4.4	3.1	4.9	17	12	7.1	5.2	2.6	4.7
24	6.4	4.6	5.3	4.4	3.2	6.4	16	12	6.7	5.4	2.7	4.6
25	6.2	4.7	5.4	4.5	3.2	5.9	15	12	6.7	6.4	2.4	4.6
26	6.6	4.9	5.5	4.4	3.5	8.0	15	12	6.7	5.8	2.1	5.0
27	7.2	4.9	5.5	4.3	3.3	9.1	14	11	7.1	5.0	2.2	5.1
28	6.2	4.9	5.4	4.1	3.3	8.1	14	11	6.9	4.8	2.5	4.9
29	6.0	4.9	5.3	4.3	---	7.7	14	12	9.6	4.9	2.7	4.8
30	6.0	5.0	5.2	4.3	---	8.1	13	11	7.8	4.0	3.2	4.3
31	6.1	---	5.2	4.3	---	7.3	---	13	---	4.2	3.6	---
TOTAL	245.6	173.9	159.7	144.9	99.6	150.4	478.3	389	281.1	193.0	95.4	138.5
MEAN	7.92	5.80	5.15	4.67	3.56	4.85	15.9	12.5	9.37	6.23	3.08	4.62
MAX	10	7.7	5.5	5.2	4.3	9.1	26	17	13	9.9	5.1	8.3
MIN	6.0	4.6	4.8	4.1	3.1	3.2	7.6	11	6.7	4.0	2.1	2.8
AC-FT	487	345	317	287	198	298	949	772	558	383	189	275

CAL YR 1980 TOTAL 16062.4 MEAN 43.9 MAX 420 MIN 1.9 AC-FT 31860
WTR YR 1981 TOTAL 2549.4 MEAN 6.98 MAX 26 MIN 2.1 AC-FT 5060

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1974 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1975 to September 1980.
WATER TEMPERATURE: April 1975 to September 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. This station formerly known as Parachute Creek near Grand Valley, Colo.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,560 micromhos Oct. 27, 1977; minimum, 213 micromhos May 7, 1980.
WATER TEMPERATURES: Maximum, 34.0°C July 30, 1977; minimum, -0.5°C Jan. 11, 31, Feb. 9, 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT										
07...	1200	2.0	--	--	--	8.0	--	--	--	--
07...	1300	8.2	900	925	8.2	8.0	9.6	350	67	44
MAY										
21...	1200	13	--	--	--	9.0	--	--	--	--
22...	1400	13	790	801	8.4	9.0	10.2	310	59	40
JUN										
09...	1500	11	--	--	--	17.5	--	--	--	--
JUL										
02...	1100	7.3	825	--	8.4	12.0	--	--	--	--
29...	1500	4.4	913	909	9.2	16.0	7.8	340	59	47
SEP										
24...	1300	2.4	941	1100	8.9	12.5	10.3	340	58	46

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
07...	77	1.8	3.1	310	140	26	.7	18	564	.77
MAY										
21...	--	--	--	--	--	--	--	--	--	--
22...	70	1.7	2.3	300	130	15	.5	16	515	.70
JUN										
09...	--	--	--	--	--	--	--	--	--	--
JUL										
02...	--	--	--	--	--	--	--	--	--	--
29...	87	2.3	3.7	280	170	22	.6	18	576	.78
SEP										
24...	84	2.3	3.1	290	160	33	.3	17	577	.78

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
OCT									
07...	--	--	--	--	--	--	--	--	--
07...	12.5	1.6	.000	.73	.73	2.3	.020	110	10
MAY									
21...	--	--	--	--	--	--	--	--	--
22...	18.2	.84	.110	.64	.75	1.6	.110	90	<10
JUN									
09...	--	--	--	--	--	--	--	--	--
JUL									
02...	--	--	--	--	--	--	--	--	--
29...	6.8	1.0	.050	.52	.57	1.6	.020	130	79
SEP									
24...	3.8	.84	.130	.80	.93	1.8	.050	150	<10

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS)
OCT									
07...	--	--	--	--	--	--	--	--	--
07...	10	2	--	9.4	2.76	4.17	8.79	1.38	160
MAY									
21...	--	--	--	--	--	--	--	--	--
22...	10	<1	9.8	8.5	--	--	--	--	--
JUN									
09...	--	--	--	--	--	--	--	--	--
JUL									
02...	--	--	--	--	26.0	27.7	12.0	.000	142
29...	--	--	--	--	--	--	--	--	--
SEP									
24...	10	2	4.5	5.2	--	--	--	--	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT												
07...	1300	20	0	5	4	100	90	10	<1	0	1	0
MAY												
22...	1400	90	10	5	4	100	80	0	<1	1	<1	10
SEP												
24...	1300	590	10	4	4	200	72	0	<1	1	<1	10

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
OCT												
07...	0	0	<3	2	0	0	4	30	30	.0	.0	17
MAY												
22...	10	13	<3	4	1	3	5	20	20	.0	.0	15
SEP												
24...	10	1	0	1	2	4	3	40	29	.0	.0	22

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
OCT											
07...	19	0	0	3	3	1200	1200	8.0	20	<3	.00
MAY											
22...	22	19	2	2	3	1100	1200	11	0	<3	.00
SEP											
24...	30	0	1	3	2	1200	1400	9.0	30	<3	.00

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
07...	1200	2.0	13	.07
07...	1300	8.2	13	.29
MAY				
21...	1200	13	5	.18
22...	1400	13	5	.18
JUN				
09...	1500	11	10	.28
JUL				
29...	1500	4.4	205	2.4
SEP				
24...	1300	2.4	13	.08

09093500 PARACHUTE CREEK AT PARACHUTE, CO

LOCATION.--Lat 39°27'11", long 108°03'33", in SE¼NW¼ sec.12, T.7 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on left bank 1,300 ft (396 m) upstream from cemetery bridge in Grand Valley, 2,000 ft (610 m) downstream from headgate of Diamond ditch, and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--198 mi² (513 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1927, October 1948 to September 1954, October 1974 to current year. Prior to October 1980, published as at Grand Valley.

GAGE.--Water-stage recorder. Altitude of gage is 5,100 ft (1,554 m), from topographic map (revised). Nonrecording gage Apr. 7, 1921, to Sept. 30, 1927; water-stage recorder Oct. 1, 1948, to Sept. 30, 1954, at site 75 ft (23 m) upstream at different datum; and October 1974 to December 23, 1975, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of 1,400 acres (5.67 km²) and 400 acres (1.62 km²) along Colorado River.

AVERAGE DISCHARGE.--19 years (water years 1922-27, 1949-54, 1975-81), 31.0 ft³/s (0.878 m³/s), 22,460 acre-ft/yr (27.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s (73.6 m³/s) July 31, 1976, gage height, 9.47 ft (2.886 m), from high-water marks, result of slope-area measurement; no flow for short periods 1926-27, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 80 ft³/s (2.27 m³/s) at 1900 Aug. 30, gage height, 4.13 ft (1.259 m), no peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 3.1 ft³/s (0.088 m³/s) Aug. 26, 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	20	16	17	15	14	18	9.1	12	7.1	4.7	4.6
2	9.3	20	16	16	14	14	17	8.5	13	7.6	4.9	4.6
3	9.5	20	16	16	14	14	15	13	13	8.2	4.6	4.7
4	9.8	20	16	16	14	15	14	16	12	7.4	4.6	4.6
5	9.8	20	16	16	14	15	14	15	12	7.9	4.7	4.6
6	9.8	20	16	16	14	15	14	12	12	7.1	4.9	4.8
7	9.8	19	16	17	14	15	14	11	13	6.4	5.6	5.0
8	9.8	20	16	17	14	15	13	10	12	5.8	6.2	5.3
9	9.8	20	16	17	14	14	13	10	12	7.1	6.0	5.4
10	8.7	20	16	17	15	15	15	11	12	7.6	6.9	7.7
11	8.7	19	16	16	16	15	21	12	14	7.9	7.8	7.9
12	9.5	20	16	16	14	15	25	12	14	7.9	7.7	6.5
13	9.8	21	16	16	14	16	24	14	15	13	6.3	5.8
14	10	19	16	16	14	16	23	14	15	8.4	5.7	6.5
15	13	18	16	16	14	15	23	14	15	6.9	7.0	6.3
16	15	17	15	16	14	15	25	13	13	6.7	6.2	5.6
17	14	17	16	16	14	16	28	13	13	7.4	6.2	5.3
18	14	17	16	15	14	16	26	13	12	6.7	5.0	5.3
19	15	17	16	15	14	16	25	12	12	7.4	4.2	5.3
20	16	17	16	15	14	16	24	9.8	11	6.4	3.8	5.3
21	16	18	16	15	14	16	22	13	7.9	4.2	3.4	5.3
22	16	18	16	15	14	16	20	15	7.4	3.9	3.3	5.3
23	18	17	16	14	14	16	18	13	7.7	4.6	3.5	5.4
24	22	18	16	14	14	16	15	12	7.4	4.0	3.5	5.5
25	21	16	16	14	14	17	15	11	6.5	4.6	3.4	5.5
26	21	15	16	14	15	16	13	11	6.6	4.6	3.1	6.1
27	20	15	16	14	14	19	13	11	8.4	4.7	3.1	6.2
28	20	15	16	14	14	20	13	10	8.2	4.6	3.2	6.2
29	20	15	16	16	---	18	11	11	6.9	4.7	3.1	6.2
30	21	16	17	15	---	18	9.5	11	6.7	4.6	10	6.2
31	21	---	17	15	---	17	---	12	---	4.6	6.8	---
TOTAL	436.6	544	497	482	397	491	540.5	372.4	330.7	200.0	159.4	169.0
MEAN	14.1	18.1	16.0	15.5	14.2	15.8	18.0	12.0	11.0	6.45	5.14	5.63
MAX	22	21	17	17	16	20	28	16	15	13	10	7.9
MIN	8.7	15	15	14	14	14	9.5	8.5	6.5	3.9	3.1	4.6
AC-FT	866	1080	986	956	787	974	1070	739	656	397	316	335

CAL YR 1980 TOTAL 23979.9 MEAN 65.5 MAX 688 MIN 7.0 AC-FT 47560
WTR YR 1981 TOTAL 4619.6 MEAN 12.7 MAX 28 MIN 3.1 AC-FT 9160

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to September 1980. April to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to September 1980.
WATER TEMPERATURE: January 1975 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1980. April to current year.

REMARKS.--Prior to Dec. 23, 1975, station was 0.5 mi (0.8 km) downstream from present location. Since May 1976, periodic samples of suspended sediment have been collected by an observer. This station formerly known as Parachute Creek at Grand Valley, CO.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,440 micromhos June 4, 1977; minimum, 811 micromhos May 21, 1980.
WATER TEMPERATURES: Maximum, 32.0°C June 26, 1977, July 26, 27, 30, 1978; minimum, 0.0°C Mar. 5, Dec. 20-23, 1977, Feb. 6, 7, 9, 1979.
SEDIMENT CONCENTRATIONS: Maximum daily, 95,000 mg/L Aug. 25, 1977; minimum daily, 3 mg/L July 18, 1977.
SEDIMENT LOADS: Maximum daily, 82,000 tons (74,400 t) July 31, 1976; minimum daily, less than 0.005 ton (0.005 t) on many days during 1977.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 14,000 mg/L July 13; minimum daily, 43 mg/L May 26.
SEDIMENT LOADS: Maximum daily, 531 tons (480 t), July 13, minimum daily, 1.3 ton (1.2 t) several days during 1981 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV										
25...	1000	16	1200	--	8.2	3.0	11.3	--	--	--
MAY										
20...	1200	10	1350	1400	8.7	11.5	9.4	530	99	68
JUN										
03...	1300	13	--	--	--	15.0	--	--	--	--
JUL										
02...	1300	8.0	1400	--	8.3	20.5	--	--	--	--
13...	1000	13	--	--	--	16.0	--	--	--	--
29...	1200	4.9	1424	1420	8.9	17.0	7.9	550	99	74
SEP										
23...	1400	5.7	1463	1320	8.3	17.4	8.0	550	100	72

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV									
25...	--	--	--	--	--	--	--	--	--
MAY									
20...	130	2.5	4.6	410	360	25	.8	17	953
JUN									
03...	--	--	--	--	--	--	--	--	--
JUL									
02...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
29...	140	2.9	4.3	370	410	25	.8	20	996
SEP									
23...	120	2.5	4.4	360	430	30	.8	20	996

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)
NOV 25...	--	--	--	--	--	--	--	--	--
MAY 20...	1.3	26.8	.37	.110	.72	.83	1.2	.400	140
JUN 03...	--	--	--	--	--	--	--	--	--
JUL 02...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
29...	1.4	13.2	.18	.070	.64	.71	.89	.020	170
SEP 23...	1.4	15.2	.35	.110	.89	1.00	1.4	.010	160

DATE	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
NOV 25...	--	--	--	--	--	--	--	--	--
MAY 20...	20	31	22	.00	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--
JUL 02...	--	--	--	--	64.9	66.4	3.93	.300	382
13...	--	--	--	--	--	--	--	--	--
29...	20	--	--	--	--	--	--	--	--
SEP 23...	<10	4.4	4.7	>.00	7.01	7.40	2.31	<.010	169

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAY 20...	240	10	4	4	100	80	0	<1	0	<1	0	10
SEP 23...	490	0	5	4	100	63	0	<1	0	<1	0	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
MAY 20...	1	<3	3	1	2	4	40	50	30	20	.0	.0
SEP 23...	0	0	3	1	2	2	50	49	40	21	.0	.0

DATE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY 20...	22	25	4	3	4	4	1600	1700	8.0	10	10
SEP 23...	28	40	0	1	3	3	1600	1800	5.0	30	27

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN					
03...	1300	13	42	1.5	--
JUL					
13...	1000	13	15900	558	99
29...	1200	4.9	130	1.7	--
SEP					
23...	1400	5.7	74	1.1	--

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	18			9.1	---	---	12	59	1.9
2	17			8.5	---	---	13	47	1.6
3	15			13	---	---	13	51	1.8
4	14			16	---	---	12	87	2.8
5	14			15	---	---	12	59	1.9
6	14			12	---	---	12	77	2.5
7	14			11	---	---	13	110	3.9
8	13			10	---	---	12	78	2.5
9	13			10	---	---	12	72	2.3
10	15			11	---	---	12	77	2.5
11	21			12	---	---	14	119	4.5
12	25			12	---	---	14	100	3.8
13	24			14	---	---	15	71	2.9
14	23			14	---	---	15	48	1.9
15	23			14	---	---	15	54	2.2
16	25			13	---	---	13	94	3.3
17	28			13	---	---	13	108	3.8
18	26			13	---	---	12	150	4.9
19	25			12	---	---	12	168	5.4
20	24			9.8	89	2.4	11	175	5.2
21	22			13	266	9.3	7.9	228	4.9
22	20			15	135	5.5	7.4	191	3.8
23	18			13	75	2.6	7.7	165	3.4
24	15			12	47	1.5	7.4	197	3.9
25	15			11	50	1.5	6.5	239	4.2
26	13			11	43	1.3	6.6	215	3.8
27	13			11	45	1.3	8.4	1380	99
28	13			10	50	1.4	8.2	2270	56
29	11			11	53	1.6	6.9	600	11
30	9.5			11	60	1.8	6.7	400	7.2
31	---			12	65	2.1	---	---	---

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	7.1	377	7.2	4.7	199	2.5	4.6	460	5.7
2	7.6	313	6.4	4.9	243	3.2	4.6	252	3.1
3	8.2	311	6.9	4.6	230	2.9	4.7	156	2.0
4	7.4	280	5.6	4.6	163	2.0	4.6	206	2.6
5	7.9	306	6.5	4.7	135	1.7	4.6	118	1.5
6	7.1	220	4.2	4.9	203	2.7	4.8	119	1.5
7	6.4	311	5.4	5.6	257	3.9	5.0	343	5.1
8	5.8	251	3.9	6.2	310	5.2	5.3	1880	31
9	7.1	437	11	6.0	180	2.9	5.4	364	9.9
10	7.6	1110	24	6.9	311	5.8	7.7	2310	54
11	7.9	310	6.6	7.8	369	7.8	7.9	2030	51
12	7.9	3690	120	7.7	276	5.7	6.5	620	11
13	13	14000	531	6.3	118	2.0	5.8	480	7.5
14	8.4	1310	32	5.7	98	1.5	6.5	780	14
15	6.9	480	8.9	7.0	95	1.8	6.3	475	8.1
16	6.7	370	6.7	6.2	659	11	5.6	325	4.9
17	7.4	590	12	6.2	267	4.5	5.3	228	3.3
18	6.7	430	7.8	5.0	284	3.8	5.3	213	3.0
19	7.4	340	6.8	4.2	181	2.1	5.3	219	3.1
20	6.4	340	5.9	3.8	140	1.4	5.3	158	2.3
21	4.2	520	5.9	3.4	234	2.1	5.3	135	1.9
22	3.9	580	6.1	3.3	275	2.5	5.3	90	1.3
23	4.6	851	10	3.5	352	3.3	5.4	95	1.4
24	4.0	928	11	3.5	343	12	5.5	98	1.5
25	4.6	534	6.6	3.4	220	2.0	5.5	100	1.5
26	4.6	341	4.3	3.1	265	2.2	6.1	120	2.0
27	4.7	310	3.9	3.1	211	1.8	6.2	102	1.7
28	4.6	174	2.2	3.2	197	1.7	6.2	119	2.0
29	4.7	212	2.7	3.1	227	1.9	6.2	130	2.2
30	4.6	167	2.1	10	6200	1170	6.2	136	2.3
31	4.6	192	2.4	6.8	1670	45	---	---	---

09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE¼SW¼ sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi (4.8 km) downstream from Alkali Creek and 3.8 mi (6.1 km) northeast of De Beque.

DRAINAGE AREA.--7,370 mi^2 (19,088 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres (639 km^2).

AVERAGE DISCHARGE.--15 years, 3,511 ft^3/s (99.43 m^3/s), 2,544,000 acre-ft/yr (3,140 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s (637 m^3/s) June 15, 1973, gage height, 11.07 ft (3.374 m); minimum daily, 914 ft^3/s (25.9 m^3/s) Dec. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft^3/s (292 m^3/s) at 1600 June 10, gage height, 7.84 ft (2.390 m); minimum daily, 1,000 ft^3/s (28.3 m^3/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1980	1700	1530	1220	1220	1230	3190	7270	2980	1820	1870
2	1830	1960	1690	1520	1160	1210	1180	3340	6980	3060	1810	1900
3	1830	1950	1680	1510	1090	1230	1250	4510	7460	3380	1760	1840
4	1820	1950	1650	1510	1130	1240	1250	5880	7810	3310	1680	1820
5	1790	1900	1670	1540	1200	1240	1230	4730	7970	3110	1630	1800
6	1780	1920	1710	1570	1150	1220	1210	4010	8290	2860	1690	1890
7	1790	1890	1750	1460	1160	1210	1240	3460	8930	2700	1660	1910
8	1790	1890	1710	1410	1120	1200	1250	3090	9480	2490	1610	2010
9	1760	1870	1670	1360	1150	1190	1270	2850	9470	2390	1620	2070
10	1780	1860	1620	1370	1180	1180	1310	2590	9570	2400	1680	2080
11	1730	1840	1460	1360	1110	1190	1370	2390	9030	2590	1840	2090
12	1740	1860	1480	1310	1000	1190	1520	2260	8190	2670	1870	2290
13	1760	1920	1530	1280	1180	1180	1630	2210	7080	2790	1900	2230
14	1850	1970	1500	1230	1200	1170	1700	2330	6010	2940	1920	2250
15	1950	1970	1520	1250	1210	1170	1800	2330	4980	2660	1980	2240
16	2010	1830	1550	1310	1230	1150	2030	2380	4050	2450	2000	2160
17	2080	1690	1550	1390	1230	1210	2120	2440	3540	2370	1970	2040
18	2090	1610	1570	1410	1190	1200	2200	2560	3440	2640	1920	1990
19	2080	1510	1600	1320	1210	1180	2360	2620	3310	2600	1860	1830
20	2110	1560	1610	1290	1210	1190	2540	2660	3230	2450	1810	1800
21	2160	1640	1580	1220	1230	1180	2510	2750	3430	2270	1720	1840
22	2170	1620	1580	1200	1200	1190	2410	2740	3570	2030	1690	1810
23	2150	1640	1650	1170	1180	1190	2280	2670	3480	1910	1720	1800
24	2090	1760	1640	1210	1190	1180	2120	2590	3230	1840	1780	1820
25	2030	1690	1550	1240	1230	1180	2210	2720	3030	1910	1820	1810
26	2020	1730	1600	1250	1230	1190	2520	2920	2870	1920	1820	1800
27	2040	1640	1600	1190	1270	1210	2900	3370	2930	2190	1810	1790
28	2100	1580	1590	1220	1230	1250	3070	4460	3160	2250	1810	1700
29	2030	1650	1590	1280	---	1230	3040	6100	3620	2150	1790	1670
30	1980	1710	1560	1280	---	1240	3090	6710	3360	2020	1910	1670
31	1960	---	1490	1240	---	1250	---	7140	---	1920	1890	---
TOTAL	60130	57590	49650	41430	33090	37260	57840	106000	168770	77250	55790	57820
MEAN	1940	1786	1602	1336	1182	1202	1928	3419	5626	2492	1800	1927
MAX	2170	1980	1750	1570	1270	1250	3090	7140	9570	3380	2000	2290
MIN	1730	1510	1460	1170	1000	1150	1180	2210	2870	1840	1610	1670
AC-FT	119300	106300	98480	82180	65630	73910	114700	210300	334800	153200	110700	114700

CAL YR 1980 TOTAL 1437530 MEAN 3928 MAX 19200 MIN 1410 AC-FT 2851000
WTR YR 1981 TOTAL 798620 MEAN 2188 MAX 9570 MIN 1000 AC-FT 1584000

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURE: August 1973 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,700 micromhos July 13, 1981; minimum daily, 260 micromhos May 29, 1981.
WATER TEMPERATURES: Maximum daily, 25.0°C July 1-4, 18-20, 1977; minimum daily, freezing point on many days during winter months each year.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,090 mg/L Mar. 9, 1975; minimum daily, 2 mg/L Dec. 7, 17, 1975, Feb. 22, 1976.
SEDIMENT LOADS: Maximum daily, 41,300 tons (37,500 t) May 17, 1975; minimum daily, 8.4 tons (7.6 t) Feb. 22, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,700 micromhos July 13; minimum daily, 320 micromhos June 9, 10.
WATER TEMPERATURES: Maximum daily, 24.0°C Aug. 1-4; minimum daily, 2.0°C several days during January and February

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)
OCT								
21...	1245	2220	1090	1090	7.8	9.5	9.5	280
NOV								
28...	1200	1670	1170	1150	8.2	1.5	11.2	250
JAN								
05...	1330	1550	1150	1200	8.3	4.0	11.4	250
FEB								
18...	1330	1230	--	1380	9.1	4.0	14.2	280
APR								
06...	1300	1180	1290	1340	8.8	9.0	11.2	270
MAY								
06...	1400	4060	560	553	8.1	13.0	8.4	150
29...	1200	6060	520	520	7.8	14.5	8.0	160
JUN								
08...	1300	9950	305	357	8.3	15.5	7.8	110
JUL								
08...	1200	2510	840	882	8.3	22.0	--	240
SEP								
08...	1400	2010	1013	1040	8.5	18.9	8.4	240

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
21...	79	19	120	3.1	4.3	--	150	180	.3
NOV									
28...	72	18	130	3.6	1.0	150	140	190	.3
JAN									
05...	71	17	140	3.9	3.8	140	140	210	.2
FEB									
18...	78	20	180	4.7	4.6	150	170	250	.1
APR									
06...	74	20	170	4.5	4.5	140	170	260	.0
MAY									
06...	44	9.4	52	1.9	2.2	110	68	69	.2
29...	48	10	45	1.5	1.8	100	66	57	.1
JUN									
08...	34	6.6	27	1.1	1.4	69	46	39	.1
JUL									
08...	74	14	85	2.4	2.9	130	130	130	.2
SEP									
08...	69	16	110	3.3	4.2	140	120	170	.3

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT								
21...	7.6	651	.89	3900	.00	.030	30	8
NOV								
26...	7.9	650	.88	2930	.19	.010	70	10
JAN								
05...	6.8	675	.92	2820	.34	.020	80	10
FEB								
18...	6.8	802	1.1	2660	.40	.050	20	30
APR								
06...	6.0	789	1.1	2500	.10	.020	30	10
MAY								
06...	7.8	320	.44	3510	.24	.050	100	10
29...	7.4	296	.40	4840	.20	.010	50	10
JUN								
08...	6.8	203	.28	5450	.17	.050	50	10
JUL								
08...	10	525	.71	3560	.07	.020	20	6
SEP								
08...	9.3	584	.79	3170	.16	.020	29	5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT					JUN				
21...	1230	2220	15	90	08...	1500	9950	262	7040
APR					JUL				
06...	1300	1180	54	171	08...	1500	2510	75	508
MAY					AUG				
06...	1300	4060	435	4770	06...	1500	1730	54	252
21...	1400	2750	204	1520	SEP				
29...	1400	6060	258	4220	08...	1400	2010	3350	18200

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	1150	1150	1100	1250	1400	1400	700	400	750	1000	1000
2	1250	1150	1150	1100	1250	1400	1400	700	400	800	1000	---
3	1200	1150	1150	1100	1300	1400	1400	650	400	800	1000	---
4	1200	1150	1150	1100	1300	1450	---	525	350	800	1000	---
5	1200	1150	1150	1100	1300	1450	---	525	350	800	1000	---
6	1200	1150	1150	1100	1350	1450	1500	600	350	800	1000	---
7	1200	1150	1150	1150	1350	1500	1500	650	340	850	1000	900
8	1200	1150	1150	1150	1350	1500	1400	700	340	900	1000	950
9	1200	1150	1150	1200	1350	1500	1400	700	320	---	---	950
10	1200	1150	1150	1200	1350	1500	1400	700	320	---	---	1000
11	1200	1150	1150	1200	1400	1500	1350	700	360	---	1000	950
12	1200	1150	1150	1200	1400	1500	1350	700	400	1600	950	---
13	1200	1100	1150	1200	1400	1500	1300	700	400	1700	950	---
14	1200	1100	1150	1200	1350	1500	1200	700	450	---	950	---
15	1200	1100	1150	1200	1350	1500	---	---	520	---	950	---
16	1200	1150	1150	1200	1350	1500	900	---	560	900	950	---
17	1200	1150	1100	1200	1350	1500	900	800	600	900	---	---
18	---	1150	1100	1250	1350	1500	---	850	700	900	950	---
19	---	1150	1100	1250	1350	1500	850	850	700	900	950	---
20	---	1150	1100	1250	1350	1500	850	---	700	900	950	---
21	---	1200	1100	1250	1350	1500	---	---	700	---	950	---
22	---	1200	1100	1250	1350	1500	850	850	700	---	950	---
23	---	1200	1100	1250	1350	1500	900	850	700	---	950	---
24	1150	1200	1050	1250	1350	1500	900	850	650	---	950	---
25	1150	1200	1050	1250	1350	1500	900	900	700	1000	---	---
26	1150	1200	1100	1250	---	1500	850	---	700	1000	---	---
27	1150	1200	1100	1250	1500	---	---	---	---	1000	---	---
28	1150	1200	1100	1250	1400	---	725	---	800	1000	---	---
29	1150	1200	1100	1250	---	---	725	---	---	900	---	---
30	1150	1200	1100	1250	---	---	725	---	---	900	1000	---
31	1150	---	1100	1250	---	---	---	---	---	---	1000	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	8.0	4.0	3.0	2.0	7.0	10.0	13.0	15.0	19.0	24.0	20.0
2	17.0	8.0	4.0	3.0	2.0	5.0	10.0	13.0	15.0	19.0	24.0	---
3	14.0	8.0	4.0	3.0	2.0	5.0	10.0	13.0	16.0	19.0	24.0	---
4	14.0	11.0	4.0	3.0	2.0	4.0	---	13.0	17.0	20.0	24.0	---
5	14.0	11.0	4.0	3.0	2.0	4.0	---	13.0	17.0	20.0	23.0	---
6	14.0	11.0	4.0	3.0	2.0	4.0	9.0	13.0	17.0	20.0	23.0	---
7	16.0	11.0	4.0	3.0	2.0	4.0	9.0	13.0	17.0	20.0	23.0	18.0
8	16.0	11.0	4.0	2.0	2.0	5.0	10.0	14.0	17.0	21.0	23.0	18.0
9	16.0	10.0	4.0	2.0	2.0	5.0	11.0	14.0	17.0	---	---	18.0
10	16.0	9.0	4.0	2.0	2.0	5.0	11.0	14.0	17.0	---	---	18.0
11	15.0	9.0	4.0	2.0	2.0	6.0	12.0	15.0	17.0	---	21.0	17.0
12	15.0	8.0	4.0	2.0	2.0	6.0	12.0	15.0	17.0	22.0	21.0	---
13	15.0	7.0	4.0	2.0	2.0	6.0	15.0	15.0	17.0	22.0	21.0	---
14	13.0	7.0	4.0	2.0	4.0	6.0	15.0	15.0	13.0	---	20.0	---
15	12.0	7.0	4.0	3.0	4.0	6.0	---	---	14.0	---	20.0	---
16	12.0	7.0	4.0	3.0	5.0	6.0	15.0	---	11.0	20.0	19.0	---
17	12.0	6.0	4.0	3.0	6.0	7.0	15.0	15.0	17.0	20.0	---	---
18	---	6.0	3.0	4.0	7.0	8.0	---	15.0	17.0	20.0	20.0	---
19	---	6.0	3.0	4.0	7.0	9.0	14.0	14.0	18.0	19.0	21.0	---
20	---	6.0	3.0	5.0	7.0	9.0	13.0	---	20.0	19.0	21.0	---
21	---	5.0	4.0	4.0	7.0	9.0	---	---	19.0	---	21.0	---
22	---	4.0	4.0	4.0	7.0	9.0	13.0	14.0	20.0	---	21.0	---
23	---	4.0	3.0	3.0	7.0	9.0	15.0	14.0	20.0	---	21.0	---
24	9.0	4.0	3.0	4.0	7.0	9.0	16.0	14.0	18.0	---	21.0	---
25	9.0	4.0	3.0	4.0	7.0	9.0	16.0	15.0	18.0	23.0	---	---
26	9.0	4.0	3.0	4.0	---	9.0	16.0	---	18.0	23.0	---	---
27	8.0	4.0	3.0	4.0	5.0	---	---	---	---	23.0	---	---
28	8.0	4.0	3.0	4.0	8.0	---	16.0	---	19.0	23.0	---	---
29	8.0	4.0	3.0	4.0	---	---	15.0	---	---	23.0	---	---
30	8.0	4.0	3.0	3.0	---	---	14.0	---	---	23.0	20.0	---
31	8.0	---	3.0	3.0	---	---	---	---	---	---	20.0	---

09095000 ROAN CREEK NEAR DE BEQUE, CO

LOCATION.--Lat 39°27'12", long 108°18'59", in NE¼NW¼ sec.15, T.7 S., R.98 W., Garfield County, Hydrologic Unit 14010006, on left bank 5.0 ft (2 m) downstream from bridge, 0.7 mi (1.1 km) downstream from Kimball Creek, and 10 mi (16 km) northwest of De Beque.

DRAINAGE AREA.--321 mi² (831 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1926, October 1962 to September 1972, October 1974 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,380 ft (1,640 m), from topographic map. Prior to October 1962, nonrecording gage at present site at different datum.

REMARKS.--Records fair except those for period of indefinite stage-discharge relation Oct. 13-19, due to channel alignment, and those for periods of no gage-height record Oct. 4, 5, Jan. 6-12 and Sept. 15-20, which are poor. Diversions above station for irrigation of about 2,800 acres (11.3 km²) above and about 570 acres (2.31 km²) below station.

AVERAGE DISCHARGE.--22 years (water years 1922-26, 1963-72, 1975-81), 42.3 ft³/s (1.198 m³/s), 30,650 acre-ft/yr (37.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s (57.2 m³/s) May 11, 1980, gage height, 9.21 ft (2.807 m), from rating curve extended above 130 ft³/s (3.7 m³/s), on basis of slope-area measurements at gage heights 4.30 and 6.09 ft (1.311 and 1.856 m); minimum daily, 3.2 ft³/s (0.091 m³/s) Nov. 25, 1963, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 17	1915	450	12.7	5.02	1.530	Sept. 7	1900	659	18.7	5.43	1.655
Aug. 12	2030	100	2.83	4.16	1.268						

Minimum daily discharge, 11 ft³/s (0.312 m³/s) Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	28	36	38	24	21	20	22	21	16	16	12
2	19	29	37	38	21	21	20	23	20	17	17	11
3	18	28	37	38	22	22	19	29	21	17	16	11
4	18	30	38	39	25	22	20	23	20	18	16	12
5	18	32	40	37	25	21	20	20	19	17	15	12
6	18	33	39	39	26	21	20	23	19	17	15	14
7	18	32	42	39	26	22	19	21	19	17	15	52
8	19	32	42	38	26	22	19	22	22	17	15	22
9	20	33	47	35	27	21	18	22	21	17	15	17
10	20	36	45	34	27	22	31	23	20	18	14	16
11	22	35	44	34	24	22	34	23	19	18	14	16
12	22	36	42	35	26	23	27	23	20	18	20	15
13	23	39	44	31	26	22	24	22	20	20	16	15
14	25	39	43	35	26	22	24	22	20	18	15	13
15	24	39	40	35	26	22	28	23	20	17	14	18
16	26	38	39	35	25	22	32	24	20	17	15	15
17	30	37	38	35	25	23	34	22	19	51	14	17
18	31	36	37	32	25	21	34	21	20	22	14	19
19	28	37	38	31	26	21	31	21	19	19	14	16
20	25	38	38	30	26	21	28	22	19	19	14	15
21	24	35	37	29	25	21	26	24	18	17	13	14
22	23	35	36	29	24	20	26	22	18	16	12	14
23	22	36	36	27	24	20	26	22	17	16	12	14
24	23	37	36	27	23	20	25	22	17	16	12	14
25	23	32	37	27	24	20	23	23	17	16	13	13
26	24	30	35	26	25	19	22	22	16	15	13	13
27	26	31	35	26	24	21	23	23	16	15	13	13
28	26	33	35	26	21	21	17	22	16	16	15	13
29	27	35	36	26	---	21	20	21	17	17	13	12
30	27	35	37	26	---	21	22	21	16	16	14	12
31	28	---	37	25	---	21	---	22	---	16	13	---
TOTAL	717	1026	1203	1002	694	659	732	695	566	566	447	470
MEAN	23.1	34.2	38.8	32.3	24.8	21.3	24.4	22.4	18.9	18.3	14.4	15.7
MAX	31	39	47	39	27	23	34	29	22	51	20	52
MIN	18	28	35	25	21	19	17	20	16	15	12	11
AC-FT	1420	2040	2390	1990	1380	1310	1450	1380	1120	1120	887	932

CAL YR 1980 TOTAL 48656 MEAN 133 MAX 1500 MIN 18 AC-FT 96510
WTR YR 1981 TOTAL 8777 MEAN 24.0 MAX 52 MIN 11 AC-FT 17410

09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1975 to September 1980. May to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1975 to September 1980.
WATER TEMPERATURE: February 1975 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: March 1975 to September 1980. May to September 1981 (discontinued).

REMARKS.--Periodic samples obtained May to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,480 micromhos Sept. 19, 1975; minimum daily, 459 micromhos May 21, 1979.
WATER TEMPERATURES: Maximum daily, 29.0°C several days during July 1977; minimum daily, freezing point on many days during winter months most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 47,900 mg/L Aug. 25, 1977; minimum daily, 5 mg/L, estimated Sept. 28-30, 1978.
SEDIMENT LOADS: Maximum daily, 34,400 tons (32,200 t) May 12, 1980; minimum daily, 0.14 ton (0.13 t), estimated Sept. 28-30, 1978.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 23,900 mg/L Sept. 7; minimum daily, 25 mg/L Sept. 24.
SEDIMENT LOADS: Maximum daily, 15,700 tons (14,200 t) Sept. 7; minimum daily, 0.94 ton (0.85 t) Sept. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAY										
04...	1500	22	1300	1350	8.2	14.0	8.6	510	84	73
21...	1200	26	--	--	--	10.0	--	--	--	--
JUL										
01...	1400	17	1400	--	8.1	17.5	--	--	--	--
28...	1400	16	1310	1330	8.6	19.0	7.6	500	77	74
SEP										
21...	1300	14	1293	1450	8.1	17.3	--	490	74	73

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAY									
04...	140	2.7	3.5	420	360	2.9	.5	17	935
21...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
28...	130	2.9	3.2	390	380	17	.6	17	934
SEP									
21...	130	3.0	3.3	360	350	11	.6	16	875

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)
MAY									
04...	1.3	54.3	1.6	.110	.83	.94	2.5	.160	200
21...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
28...	1.3	39.3	.78	.060	.88	.94	1.7	.020	220
SEP									
21...	1.2	34.0	.60	.030	.92	.95	1.6	.050	210

09095000 ROAN CREEK NEAR DE BECUE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)
MAY									
04...	20	7.4	7.2	.06	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	15.1	26.1	19.7	7.15	558
28...	14	--	--	--	--	--	--	--	--
SEP									
21...	60	5.5	5.3	>.00	53.2	57.3	36.6	1.17	112

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAY												
04...	3000	20	5	4	100	80	0	<1	0	<1	30	20
SEP												
21...	580	10	5	3	100	76	0	<1	1	<1	20	0

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
MAY											
04...	3	<3	8	2	6	4	50	130	30	.2	.0
SEP											
21...	2	<3	8	1	19	1	57	60	30	.0	.0

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAY											
04...	18	24	8	0	5	5	1200	1300	6.0	20	7
SEP											
21...	22	20	3	2	4	4	1200	1300	5.0	20	4

09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY				
04...	1500	22	255	15
21...	1200	26	2	.12
JUL				
28...	1400	16	111	4.7
SEP				
21...	1300	14	131	5.1

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	20			22	---	---	21	550	31
2	20			23	---	---	20	750	40
3	19			29	---	---	21	320	18
4	20			23	---	---	20	280	15
5	20			20	---	---	19	207	11
6	20			23	---	---	19	199	10
7	19			21	---	---	19	138	7.1
8	19			22	---	---	22	121	7.2
9	18			22	---	---	21	153	8.7
10	31			23	---	---	20	104	5.6
11	34			23	---	---	19	127	6.5
12	27			23	---	---	20	198	11
13	24			22	---	---	20	111	6.0
14	24			22	---	---	20	90	4.9
15	28			23	---	---	20	69	3.7
16	32			24	---	---	20	71	3.8
17	34			22	---	---	19	64	3.3
18	34			21	---	---	20	73	3.9
19	31			21	---	---	19	137	7.0
20	28			22	---	---	19	116	6.0
21	26			24	168	11	18	75	3.6
22	26			22	184	11	18	62	3.0
23	26			22	229	14	17	92	4.2
24	25			22	146	8.7	17	110	5.0
25	23			23	147	9.1	17	87	4.0
26	22			22	133	7.9	16	88	3.8
27	23			23	213	13	16	128	5.5
28	17			22	183	11	16	162	7.0
29	20			21	123	7.0	17	545	25
30	22			21	117	6.6	16	218	9.4
31	---			22	156	9.3	---	---	---

09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	16	258	11	16	152	6.6	12	98	3.2
2	17	172	7.9	17	147	6.7	11	92	2.7
3	17	132	6.1	16	177	7.6	11	147	4.4
4	18	192	9.3	16	101	4.4	12	133	4.3
5	17	260	12	15	86	3.5	12	132	4.3
6	17	208	9.5	15	67	2.7	14	600	23
7	17	172	7.9	15	71	2.9	52	23900	15700
8	17	176	8.1	15	61	2.5	22	8930	577
9	17	119	5.5	15	77	3.1	17	780	36
10	18	122	5.9	14	52	2.0	16	470	20
11	18	102	5.0	14	46	1.7	16	1160	50
12	18	168	8.2	20	220	26	15	460	19
13	20	280	15	16	1430	66	15	350	14
14	18	188	9.1	15	600	25	13	357	13
15	17	144	6.6	14	208	7.9	18	296	14
16	17	76	3.5	15	242	9.8	15	196	7.9
17	51	16100	6300	14	200	7.6	17	251	12
18	22	5430	356	14	165	6.2	19	207	11
19	19	700	36	14	139	5.3	16	191	8.3
20	19	345	18	14	164	6.2	15	172	7.0
21	17	306	14	13	94	3.3	14	168	6.4
22	16	240	10	12	92	3.0	14	77	2.9
23	16	245	11	12	113	3.7	14	34	1.3
24	16	275	12	12	130	4.2	14	25	.95
25	16	470	20	13	121	4.2	13	61	2.1
26	15	263	11	13	105	3.7	13	54	1.9
27	15	243	9.8	13	78	2.7	13	51	1.8
28	16	161	7.0	15	133	5.4	13	49	1.7
29	17	170	7.8	13	85	3.0	12	73	2.4
30	16	181	7.8	14	132	5.0	12	40	1.3
31	16	178	7.7	13	175	6.1	---	---	---

09095400 DRY FORK NEAR DE BEQUE, CO

LOCATION.--Lat 39°22'08", long 108°15'41", in SE¼SW¼ sec.7, T.8 S., R.97 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.4 mi (0.6 km) upstream from mouth and 3.4 mi (5.5 km) northwest of De Beque.

DRAINAGE AREA.--109 mi² (282 km²).

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR CO-76-2: 1975(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,085 ft (1,550 m), from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 5.14 ft³/s (0.146 m³/s) 3,720 acre-ft/yr (4.59 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft³/s (22.2 m³/s) Oct. 27, 1974, gage height, 7.11 ft (2.167 m), from floodmarks, from rating curve extended above 47 ft³/s (1.3 m³/s), on basis of slope-area measurement of peak flow at gage height 6.93 ft (2.112 m); no flow Aug. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 226 ft³/s (6.40 m³/s) May 31, gage height 5.17 ft (1.576 m), only peak above base of 50 ft³/s (2.3 m³/s); minimum daily 0.20 ft³/s (0.006 m³/s) May 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	5.5	4.9	4.3	2.4	5.0	4.1	2.0	5.9	.67	.55	1.5
2	4.8	5.2	5.2	5.0	1.6	5.5	4.3	2.0	2.2	.86	.54	1.1
3	4.6	5.2	6.0	4.8	1.8	5.5	3.8	9.7	2.1	1.4	.56	1.1
4	4.6	5.5	5.4	4.6	2.9	5.7	3.6	6.9	1.7	1.4	.58	1.0
5	4.6	5.5	5.2	4.5	3.3	5.5	3.8	4.1	1.0	1.3	.54	1.1
6	4.8	5.2	5.0	4.3	3.6	5.5	4.1	3.8	.80	1.3	.51	1.3
7	4.8	5.2	4.6	2.9	3.6	5.9	4.3	2.7	.69	1.0	.55	1.2
8	5.0	5.2	4.8	2.3	3.8	5.2	4.0	2.5	.65	.52	.57	1.5
9	5.2	5.2	4.3	2.4	5.2	5.0	4.3	2.4	.61	1.4	.64	1.1
10	5.2	5.0	2.3	2.7	5.0	5.5	4.5	1.2	.62	1.2	.55	3.6
11	5.0	5.2	2.8	2.9	1.8	4.0	4.3	1.2	.60	1.1	.64	1.4
12	4.6	5.2	3.0	2.6	3.8	4.8	4.1	.94	.55	1.1	.67	3.0
13	5.5	8.2	3.0	3.3	5.2	5.9	4.1	.95	.50	1.2	.76	3.4
14	5.2	5.0	3.5	2.7	6.8	5.2	3.8	.68	.54	.83	.65	1.6
15	12	4.0	3.5	2.6	6.6	5.0	3.6	.61	.80	.67	.45	1.4
16	7.2	4.0	4.1	3.3	6.3	5.2	3.8	.62	.78	.65	.75	1.2
17	6.1	4.0	4.1	3.5	7.0	5.2	3.6	.54	.72	1.2	.88	1.2
18	6.1	4.1	4.5	3.3	7.0	5.0	3.5	.35	.69	2.0	.82	1.2
19	6.3	4.2	4.8	3.6	6.3	4.6	3.5	.20	.64	.67	.94	1.2
20	6.6	4.4	4.6	3.8	5.7	4.8	3.3	.29	.56	.55	.56	1.1
21	5.7	4.3	4.6	3.5	4.1	4.8	3.5	1.9	.48	.59	.49	1.1
22	5.7	4.6	4.8	4.0	4.0	4.5	3.2	2.1	.42	.57	.45	.99
23	5.7	4.3	4.8	4.5	4.1	4.3	3.0	1.9	.35	.50	.45	.93
24	5.5	4.0	4.6	4.0	4.6	4.3	3.0	1.7	.34	.53	.47	.98
25	5.5	3.9	4.6	3.6	4.8	4.5	2.9	1.6	.37	.72	.41	.98
26	5.2	3.9	4.6	3.0	5.7	4.5	2.9	1.7	.35	.81	.48	.98
27	5.7	4.1	4.6	3.2	4.8	4.3	2.9	1.7	.33	.76	1.1	.98
28	5.5	4.1	4.6	4.5	4.8	4.1	2.7	1.6	.85	.57	2.6	.98
29	5.7	4.5	4.5	3.8	---	4.1	2.3	1.1	1.6	.52	4.1	.98
30	5.7	5.7	4.0	2.1	---	3.8	2.0	1.3	.69	.56	5.7	.98
31	5.5	---	3.8	2.9	---	3.8	---	15	---	.57	2.6	---
TOTAL	174.4	144.4	135.1	108.5	126.6	151.0	106.8	75.28	28.43	27.72	31.56	41.08
MEAN	5.63	4.81	4.36	3.50	4.52	4.87	3.56	2.43	.95	.89	1.02	1.37
MAX	12	8.2	6.0	5.0	7.0	5.9	4.5	15	5.9	2.0	5.7	3.6
MIN	4.6	3.9	2.3	2.1	1.6	3.8	2.0	.20	.33	.50	.41	.93
AC-FT	346	286	268	215	251	300	212	149	56	55	63	81

CAL YR 1980 TOTAL 6211.90 MEAN 17.0 MAX 97 MIN 2.3 AC-FT 12320
WTR YR 1981 TOTAL 1150.87 MEAN 3.15 MAX 15 MIN .20 AC-FT 2280

09095400 DRY FORK NEAR DEBEQUE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
MAY 21...	1430	2.4	2600	2590	8.8	18.0	7.7	790	100	130	330	5.1
JUL 01...	1100	.60	3100	--	8.4	18.5	--	--	--	--	--	--
28...	1100	.58	3150	3220	8.6	19.4	7.1	910	100	160	460	6.6
SEP 22...	1200	1.1	2460	3030	8.6	15.5	8.1	780	81	140	330	5.1

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
MAY 21...	2.9	390	1000	11	.3	14	1830	2.5	.40	.110	.99	1.10
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--
28...	3.9	410	1400	25	.3	7.9	2400	3.3	.00	.090	.67	.76
SEP 22...	3.1	400	990	16	.3	13	1810	2.5	.31	.090	.71	.80

DATE	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
MAY 21...	1.5	.180	110	20	43	6.1	.00	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	32.5	21.0	7.46	1.87	.00
28...	.76	.010	180	20	--	--	--	--	--	--	--	--
SEP 22...	1.1	<.010	140	60	6.4	6.3	>.00	16.1	16.8	1.41	.260	496

09095400 DRY FORK NEAR DEBEQUE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
MAY												
21...	590	10	5	4	100	100	0	0	1	0	10	10

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
MAY												
21...	1	0	5	2	1	5	40	40	80	40	.1	.0

DATE	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAY											
21...	20	15	5	3	4	4	2000	1900	3.0	10	30

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY				
21...	1400	2.4	204	1.3
JUL				
28...	1100	.58	29	.05
SEP				
22...	1100	1.1	8	.02

09095500 COLORADO RIVER NEAR CAMEO, CO

LOCATION.--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft (30 m) north of U.S. Highways 6 and 24, 0.5 mi (0.8 km) upstream from Jackson Canyon, 5.9 mi (9.5 km) upstream from Grand Valley project diversion dam, and 7 mi (11 km) northeast of Cameo.

DRAINAGE AREA.--8,050 mi^2 (20,850 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder. Datum of gage is 4,813.73 ft (1,467.225 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi (16 km) downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3.0 mi (4.8 km) downstream at datum 22.55 ft (6.873 m) lower.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres (648 km^2).

AVERAGE DISCHARGE.--48 years, 3,784 ft^3/s (107.2 m^3/s), 2,742,000 acre-ft/yr (3,380 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s (1,020 m^3/s) June 16, 1935, gage height, 10.91 ft (3.325 m), site and datum then in use; maximum gage height, 11.60 ft (3.536 m) June 8, 1952, site and datum then in use; minimum daily discharge, 700 ft^3/s (19.8 m^3/s) Dec. 29, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft^3/s (286 m^3/s) at 1700 June 10, gage height, 7.10 ft (2.164 m); minimum daily, 1,000 ft^3/s (28.3 m^3/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1770	1910	1760	1550	1250	1220	1190	3120	7020	2900	1730	1800
2	1770	1900	1740	1540	1190	1220	1140	3250	6660	2900	1720	1810
3	1800	1900	1730	1550	1130	1230	1200	4330	7060	3250	1710	1770
4	1760	1900	1700	1540	1140	1230	1220	5530	7490	3200	1660	1740
5	1720	1860	1720	1560	1180	1230	1190	4510	7620	3000	1610	1730
6	1720	1890	1740	1610	1140	1230	1170	3880	7920	2800	1660	1790
7	1720	1860	1800	1490	1130	1230	1190	3330	8580	2680	1630	1820
8	1760	1850	1760	1440	1120	1200	1200	2970	9250	2490	1560	1910
9	1720	1830	1710	1390	1120	1200	1230	2730	9260	2480	1590	2010
10	1740	1840	1660	1400	1160	1180	1260	2480	9400	2360	1610	2040
11	1730	1820	1510	1400	1140	1190	1330	2280	8800	2440	1800	2060
12	1710	1840	1510	1340	1000	1190	1440	2160	7980	2550	1820	2170
13	1720	1880	1550	1300	1160	1180	1570	2100	6970	2690	1850	2180
14	1780	1940	1540	1260	1180	1160	1640	2210	5880	2820	1870	2170
15	1940	1950	1540	1270	1190	1170	1720	2220	4950	2570	1900	2160
16	1940	1840	1570	1340	1200	1150	1960	2260	4110	2360	1950	2080
17	2000	1680	1580	1410	1210	1190	2050	2310	3590	2250	1910	1970
18	2010	1620	1600	1440	1190	1200	2130	2420	3470	2500	1870	1920
19	1990	1550	1620	1350	1180	1160	2290	2490	3350	2480	1800	1750
20	2010	1570	1640	1330	1220	1180	2500	2510	3220	2350	1750	1720
21	2020	1680	1610	1260	1260	1170	2490	2600	3420	2190	1660	1760
22	2060	1660	1610	1240	1230	1180	2410	2600	3570	1970	1620	1720
23	2060	1680	1680	1220	1210	1170	2280	2530	3490	1840	1630	1740
24	2020	1810	1680	1250	1220	1160	2130	2460	3230	1760	1700	1770
25	1960	1730	1580	1270	1250	1160	2180	2600	3020	1810	1760	1770
26	1940	1760	1630	1290	1250	1160	2460	2800	2860	1810	1760	1760
27	1960	1700	1620	1230	1280	1180	2830	3270	2870	2060	1750	1750
28	2030	1620	1620	1250	1240	1230	3010	4230	3100	2140	1750	1680
29	1980	1680	1620	1310	---	1200	2970	5680	3530	2060	1750	1640
30	1920	1740	1590	1320	---	1220	3020	6380	3300	1940	1860	1640
31	1900	---	1520	1290	---	1220	---	6780	---	1830	1860	---
TOTAL	58160	53490	50740	42440	33170	36990	56400	101020	164970	74480	54100	55830
MEAN	1876	1783	1637	1369	1185	1193	1880	3259	5499	2403	1745	1861
MAX	2060	1950	1800	1610	1280	1230	3020	6780	9400	3250	1950	2180
MIN	1710	1550	1510	1220	1000	1150	1140	2100	2860	1760	1560	1640
AC-FT	115400	106100	100600	84180	65790	73370	111900	200400	327200	147700	107300	110700

CAL YR 1980 TOTAL 1503760 MEAN 4109 MAX 20000 MIN 1510 AC-FT 2983000
WTR YR 1981 TOTAL 781790 MEAN 2142 MAX 9400 MIN 1000 AC-FT 1551000

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1935 to current year.
WATER TEMPERATURES: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,970 micromhos Jan. 19, 1940; minimum daily, 235 micromhos May 26, 1936.
WATER TEMPERATURES: Maximum, 24°C Aug. 16, 1962; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,700 micromhos July 10; minimum daily, 320 micromhos June 9-11.
WATER TEMPERATURES: Maximum daily, 22.0°C Aug. 1-9; minimum daily observed, 1.0°C Feb. 4, 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT											
09...	1300	1670	1180	--	8.4	12.5	8.5	.69	--	--	--
JAN											
20...	1500	1340	1300	--	7.5	2.0	11.2	.69	--	--	--
APR											
20...	1400	2570	800	846	8.0	13.5	8.5	.85	200	58	14

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT											
09...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	--	--	--	--	--	--	--	--	--	--	--
APR											
20...	93	2.8	3.3	110	120	130	.3	8.3	494	.67	3430

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
09...	.11	.13	.97	.41	.56	1.1	.010	.010	--	--
JAN										
20...	3.3	.34	.61	.26	.35	3.9	.030	.030	--	--
APR										
20...	.22	.23	1.20	.58	.62	1.4	.100	.040	40	10

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT								
09...	2	1	0	0	0	0	3	2
JAN								
20...	1	0	0	0	3	0	4	1
APR								
20...	2	1	0	<1	1	0	5	2

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT								
09...	4	5	.0	.0	1	1	10	10
JAN								
20...	5	0	.7	.5	2	2	10	10
APR								
20...	5	0	.1	.0	1	1	20	7

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	1080	1150	1100	1300	1450	1450	610	400	760	1000	975
2	1020	1080	1120	1100	1300	1450	1450	600	405	775	1020	990
3	1020	1080	1120	1100	1350	1450	1450	580	420	790	1010	975
4	1050	1080	1120	1100	1400	1500	1420	490	380	740	1050	1000
5	1080	1100	1120	1100	1400	1500	1420	460	390	800	1050	1000
6	1100	1100	1120	1150	1400	1500	1400	490	380	760	1080	975
7	1100	1100	1120	1150	1400	1500	1400	490	370	800	1080	950
8	1200	1100	1120	1150	1300	1500	1300	600	340	850	1050	1000
9	1200	1100	1120	1200	1300	1500	1300	650	320	890	1100	985
10	1200	1100	1120	1200	1300	1500	1300	690	320	1700	1050	1000
11	1150	1100	1120	1200	1300	1500	1300	750	320	950	1050	975
12	1150	1100	1120	1200	1350	1500	1250	800	330	900	1000	985
13	1150	1100	1120	1200	1350	1500	1250	820	375	900	1000	970
14	1100	1100	1120	1250	1350	1500	1250	850	395	1450	990	890
15	1100	1100	1100	1250	1350	1500	1250	780	450	990	990	900
16	1100	1120	1100	1250	1380	1500	1200	790	510	920	960	975
17	1100	1120	1100	1250	1380	1500	1100	790	590	910	960	920
18	1020	1120	1100	1300	1380	1480	1000	790	620	950	975	975
19	1080	1150	1100	1300	1400	1480	1000	775	625	900	975	960
20	1080	1150	1100	1300	1400	1480	900	750	640	925	975	990
21	1080	1150	1100	1300	1400	1450	850	760	645	900	990	1050
22	1050	1150	1100	1300	1420	1450	850	750	630	950	1020	1000
23	1050	1150	1100	1300	1420	1450	850	740	610	975	1020	1000
24	1020	1150	1100	1300	1450	1450	850	740	625	1000	1020	1000
25	1020	1150	1100	1300	1450	1450	825	780	630	1020	980	1000
26	1020	1150	1100	1300	1450	1450	825	760	750	1020	1000	1000
27	1050	1150	1100	1300	1450	1450	825	750	790	1020	975	1000
28	1050	1150	1100	1300	1450	1450	625	660	770	950	975	1000
29	1080	1150	1100	1300	---	1450	625	550	775	950	990	1050
30	1080	1150	1100	1300	---	1450	625	455	860	950	990	1050
31	1080	---	1100	1300	---	1450	---	430	---	960	1200	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	7.0	3.0	4.0	4.0	6.0	9.0	15.0	14.0	21.0	22.0	19.0
2	14.0	7.0	3.0	4.0	3.0	6.0	9.0	16.0	15.0	20.0	22.0	19.0
3	14.0	7.0	3.0	4.0	2.0	6.0	9.0	14.0	15.0	20.0	22.0	19.0
4	14.0	7.0	3.0	4.0	1.0	6.0	9.0	12.0	15.0	20.0	22.0	19.0
5	14.0	8.0	3.0	4.0	1.0	6.0	9.0	12.0	15.0	20.0	22.0	20.0
6	13.0	8.0	3.0	4.0	2.0	6.0	9.0	14.0	15.0	21.0	22.0	18.0
7	13.0	8.0	3.0	4.0	2.0	6.0	9.0	11.0	16.0	22.0	22.0	18.0
8	13.0	8.0	3.0	3.0	2.0	6.0	9.0	12.0	16.0	23.0	22.0	18.0
9	13.0	8.0	3.0	3.0	3.0	6.0	10.0	10.0	16.0	23.0	22.0	19.0
10	13.0	8.0	3.0	3.0	4.0	6.0	10.0	11.0	16.0	21.0	21.0	18.0
11	12.0	8.0	3.0	3.0	4.0	6.0	11.0	13.0	16.0	22.0	19.0	18.0
12	12.0	8.0	3.0	4.0	4.0	6.0	11.0	12.0	16.0	23.0	18.0	17.0
13	12.0	8.0	4.0	4.0	4.0	6.0	11.0	11.0	16.0	22.0	19.0	17.0
14	11.0	8.0	4.0	4.0	5.0	6.0	11.0	12.0	14.0	21.0	19.0	17.0
15	10.0	8.0	4.0	4.0	5.0	6.0	11.0	14.0	13.0	22.0	20.0	17.0
16	10.0	5.0	4.0	4.0	5.0	7.0	11.0	13.0	13.0	22.0	20.0	17.0
17	10.0	5.0	4.0	4.0	4.0	7.0	12.0	13.0	15.0	21.0	19.0	17.0
18	10.0	4.0	5.0	4.0	4.0	8.0	12.0	12.0	16.0	20.0	20.0	17.0
19	10.0	4.0	5.0	4.0	5.0	8.0	12.0	14.0	17.0	20.0	19.0	17.0
20	10.0	4.0	5.0	4.0	5.0	8.0	12.0	15.0	18.0	20.0	20.0	16.0
21	10.0	4.0	5.0	4.0	6.0	9.0	12.0	11.0	18.0	20.0	20.0	17.0
22	10.0	4.0	5.0	4.0	6.0	9.0	12.0	12.0	19.0	21.0	19.0	17.0
23	9.0	4.0	5.0	4.0	6.0	9.0	12.0	13.0	19.0	21.0	20.0	17.0
24	9.0	4.0	5.0	4.0	6.0	9.0	12.0	15.0	20.0	21.0	19.0	18.0
25	9.0	4.0	5.0	4.0	6.0	9.0	12.0	16.0	20.0	20.0	19.0	17.0
26	9.0	4.0	4.0	4.0	6.0	9.0	12.0	16.0	20.0	20.0	19.0	16.0
27	8.0	4.0	4.0	4.0	6.0	9.0	12.0	16.0	21.0	19.0	20.0	15.0
28	8.0	3.0	4.0	4.0	6.0	9.0	15.0	17.0	21.0	20.0	20.0	15.0
29	7.0	3.0	4.0	4.0	---	9.0	15.0	16.0	19.0	20.0	20.0	15.0
30	7.0	3.0	4.0	4.0	---	9.0	15.0	15.0	19.0	20.0	19.0	15.0
31	7.0	---	4.0	4.0	---	9.0	---	16.0	---	21.0	18.0	---

09095526 GOVERNMENT HIGHLINE CANAL AT 16 ROAD, NEAR LOMA, CO

LOCATION.--Lat 39°15'27" long 108°45'26", in NE¼SE¼ sec.12, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 0.2 mi (0.3 km) downstream from county bridge on 16 Road, 0.4 mi (0.6 km) north of Q Road, and 5.1 mi (8.2 km) northeast of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m), from topographic map. Prior to Apr. 1, 1981, gage at site 0.2 mi (0.3 km) upstream at datum then in use.

REMARKS.--Records poor. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Reed Wash and Salt Creek basins. Surplus flows are wasted into Reed Wash and Highline Lake. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 376 ft³/s (10.6 m³/s) Aug. 20, 1979; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	.00	.00	.00	.00	.00	.00	285	310	295	280	335
2	212	.00	.00	.00	.00	.00	.00	280	310	300	285	325
3	218	.00	.00	.00	.00	.00	90	290	310	305	285	320
4	210	.00	.00	.00	.00	.00	225	300	310	305	275	320
5	204	.00	.00	.00	.00	.00	210	315	310	295	270	320
6	204	.00	.00	.00	.00	.00	205	315	310	290	275	320
7	197	.00	.00	.00	.00	.00	220	300	310	305	280	320
8	196	.00	.00	.00	.00	.00	235	305	310	295	285	320
9	203	.00	.00	.00	.00	.00	230	335	325	305	290	325
10	208	.00	.00	.00	.00	.00	295	330	330	320	290	330
11	216	.00	.00	.00	.00	.00	290	330	325	330	295	325
12	219	.00	.00	.00	.00	.00	280	320	330	330	300	320
13	219	.00	.00	.00	.00	.00	270	315	320	340	305	320
14	210	.00	.00	.00	.00	.00	285	300	310	335	310	325
15	208	.00	.00	.00	.00	.00	310	300	320	325	310	325
16	210	.00	.00	.00	.00	.00	285	315	315	315	310	335
17	213	.00	.00	.00	.00	.00	270	315	310	310	310	330
18	210	.00	.00	.00	.00	.00	270	320	310	310	305	325
19	202	.00	.00	.00	.00	.00	280	325	310	305	295	330
20	80	.00	.00	.00	.00	.00	290	335	310	305	285	325
21	.00	.00	.00	.00	.00	.00	290	360	315	300	285	315
22	.00	.00	.00	.00	.00	.00	290	355	320	320	290	300
23	.00	.00	.00	.00	.00	.00	295	350	300	315	305	290
24	.00	.00	.00	.00	.00	.00	300	350	275	320	310	290
25	.00	.00	.00	.00	.00	.00	290	340	290	320	310	300
26	.00	.00	.00	.00	.00	.00	290	330	300	320	305	310
27	.00	.00	.00	.00	.00	.00	290	340	295	325	315	310
28	.00	.00	.00	.00	.00	.00	295	335	290	320	325	305
29	.00	.00	.00	.00	---	.00	295	325	300	315	330	305
30	.00	.00	.00	.00	---	.00	290	320	295	310	325	305
31	.00	---	.00	.00	---	.00	---	315	---	290	320	---
TOTAL	4049.00	.00	.00	.00	.00	.00	7465.00	9950	9275	9675	9260	9525
MEAN	131	.000	.000	.000	.000	.000	249	321	309	312	299	318
MAX	219	.00	.00	.00	.00	.00	310	360	330	340	330	335
MIN	.00	.00	.00	.00	.00	.00	.00	280	275	290	270	290
AC-FT	8030	.00	.00	.00	.00	.00	14810	19740	18400	19190	18370	18890

CAL YR 1980 TOTAL 49017.00 MEAN 134 MAX 328 MIN .00 AC-FT 97230
WTR YR 1981 TOTAL 59199.00 MEAN 162 MAX 360 MIN .00 AC-FT 117400

NOTE.--NO GAGE-HEIGHT RECORD OCT. 21 TO APR. 1.

09095528 LATERAL NO. 48 NEAR MACK, CO

LOCATION.--Lat 39°16'17", long 108°49'59", in NE¼SE¼ sec.5, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 400 ft (120 m) downstream from headgate on Government Highline Canal and 3.7 mi (6.0 km) north of Mack.

PERIOD OF RECORD.--April 1973 to September 1981 (discontinued).

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,720 ft (1,439 m), from topographic map.

REMARKS.--Records good. Water is used for irrigation of lands below gage along Mack Wash and Reed Wash. One small ditch diverts water about 10 ft (3 m) above gage. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 47 ft^3/s (1.33 m^3/s) Sept. 2, 1976; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	.00	.00	.00	.00	.00	.00	37	25	37	33	31
2	21	.00	.00	.00	.00	.00	.00	38	25	34	33	27
3	22	.00	.00	.00	.00	.00	.00	39	26	32	34	28
4	24	.00	.00	.00	.00	.00	.00	32	25	32	33	27
5	25	.00	.00	.00	.00	.00	.00	30	26	32	33	27
6	25	.00	.00	.00	.00	.00	.00	31	26	33	33	27
7	25	.00	.00	.00	.00	.00	8.8	31	25	33	33	28
8	25	.00	.00	.00	.00	.00	16	29	28	32	34	21
9	24	.00	.00	.00	.00	.00	14	28	31	30	35	17
10	24	.00	.00	.00	.00	.00	21	28	30	29	34	17
11	24	.00	.00	.00	.00	.00	23	27	31	29	34	16
12	30	.00	.00	.00	.00	.00	28	27	33	28	34	16
13	34	.00	.00	.00	.00	.00	30	27	36	30	33	15
14	30	.00	.00	.00	.00	.00	35	28	37	29	32	17
15	28	.00	.00	.00	.00	.00	38	35	38	29	32	19
16	20	.00	.00	.00	.00	.00	36	40	38	30	32	19
17	16	.00	.00	.00	.00	.00	34	37	36	28	31	19
18	16	.00	.00	.00	.00	.00	30	34	37	28	30	19
19	18	.00	.00	.00	.00	.00	35	26	37	29	28	19
20	9.8	.00	.00	.00	.00	.00	35	24	38	29	24	19
21	.00	.00	.00	.00	.00	.00	32	24	38	29	21	18
22	.00	.00	.00	.00	.00	.00	32	25	38	28	20	17
23	.00	.00	.00	.00	.00	.00	36	30	37	27	20	17
24	.00	.00	.00	.00	.00	.00	38	31	36	28	24	21
25	.00	.00	.00	.00	.00	.00	39	31	36	29	28	23
26	.00	.00	.00	.00	.00	.00	39	31	37	29	29	23
27	.00	.00	.00	.00	.00	.00	39	30	37	29	30	23
28	.00	.00	.00	.00	.00	.00	40	30	37	31	34	23
29	.00	.00	.00	.00	---	.00	40	29	37	34	37	23
30	.00	.00	.00	.00	---	.00	39	25	37	35	38	23
31	.00	---	.00	.00	---	.00	---	24	---	34	36	---
TOTAL	461.80	.00	.00	.00	.00	.00	757.80	938	998	946	962	639
MEAN	14.9	.000	.000	.000	.000	.000	25.3	30.3	33.3	30.5	31.0	21.3
MAX	34	.00	.00	.00	.00	.00	40	40	38	37	38	31
MIN	.00	.00	.00	.00	.00	.00	.00	24	25	27	20	15
AC-FT	916	.00	.00	.00	.00	.00	1500	1860	1980	1880	1910	1270

CAL YR 1980 TOTAL 5656.80 MEAN 15.5 MAX 46 MIN .00 AC-FT 11220
WTR YR 1981 TOTAL 5702.60 MEAN 15.6 MAX 40 MIN .00 AC-FT 11310

09095529 CAMP NO. 7 SPILLWAY NEAR MACK, CO

LOCATION.--Lat 39°16'22", long 108°49'56", in NE¼SE¼ sec.5, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 10410005, on right bank at dam on spillway, 10 ft (3 m) downstream from headgates on Government Highline Canal, and 3.7 mi (6.0 km) north of Mack.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete weir. Altitude of gage is 4,720 ft (1,439 m), from topographic map. Prior to Mar. 30, 1976, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Government Highline Canal diverts from Colorado River in SW¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is waste water into Highline Lake. Flow is regulated by a diversion gate.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 182 ft³/s (5.15 m³/s) Apr. 4, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	.00	.00	.00	.00	.00	.00	.00	51	.99	.75	60
2	11	.00	.00	.00	.00	.00	.00	.00	50	9.5	.48	55
3	.60	.00	.00	.00	.00	.00	46	.00	52	27	.21	45
4	.45	.00	.00	.00	.00	.00	182	15	40	36	.22	45
5	.45	.00	.00	.00	.00	.00	102	35	24	4.1	.13	50
6	.45	.00	.00	.00	.00	.00	71	38	24	.84	.27	56
7	.30	.00	.00	.00	.00	.00	28	34	16	.85	.22	50
8	.15	.00	.00	.00	.00	.00	33	36	13	.88	.28	50
9	.00	.00	.00	.00	.00	.00	40	46	27	.77	.15	60
10	.00	.00	.00	.00	.00	.00	40	52	27	16	.00	72
11	.00	.00	.00	.00	.00	.00	16	49	7.9	39	.00	80
12	4.0	.00	.00	.00	.00	.00	10	45	1.8	42	.00	76
13	10	.00	.00	.00	.00	.00	.34	49	1.7	52	.00	72
14	22	.00	.00	.00	.00	.00	8.1	47	1.5	54	5.3	70
15	50	.00	.00	.00	.00	.00	15	23	1.4	50	18	67
16	82	.00	.00	.00	.00	.00	3.1	16	1.3	42	18	66
17	65	.00	.00	.00	.00	.00	.29	20	1.3	37	18	64
18	25	.00	.00	.00	.00	.00	.54	40	1.1	37	9.0	64
19	12	.00	.00	.00	.00	.00	.58	50	.99	55	.00	61
20	4.0	.00	.00	.00	.00	.00	4.7	57	.85	26	.00	59
21	.00	.00	.00	.00	.00	.00	8.0	67	.56	1.1	.00	59
22	.00	.00	.00	.00	.00	.00	7.6	67	.63	15	.00	58
23	.00	.00	.00	.00	.00	.00	2.7	65	.69	29	9.0	58
24	.00	.00	.00	.00	.00	.00	.73	66	.61	35	18	55
25	.00	.00	.00	.00	.00	.00	.78	64	.54	33	18	56
26	.00	.00	.00	.00	.00	.00	.89	55	.62	32	15	57
27	.00	.00	.00	.00	.00	.00	.73	59	.62	26	38	58
28	.00	.00	.00	.00	.00	.00	.66	56	.49	23	60	57
29	.00	.00	.00	.00	---	.00	.73	46	.89	18	60	56
30	.00	.00	.00	.00	---	.00	.65	45	1.1	7.3	60	54
31	.00	---	.00	.00	---	.00	---	50	---	.86	50	---
TOTAL	306.40	.00	.00	.00	.00	.00	624.12	1292.00	350.59	751.19	399.01	1790
MEAN	9.88	.000	.000	.000	.000	.000	20.8	41.7	11.7	24.2	12.9	59.7
MAX	82	.00	.00	.00	.00	.00	182	67	52	55	60	80
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.49	.77	.00	45
AC-FT	608	.00	.00	.00	.00	.00	1240	2560	695	1490	791	3550

CAL YR 1980 TOTAL 4029.13 MEAN 11.0 MAX 104 MIN .00 AC-FT 7990
WTR YR 1981 TOTAL 5513.31 MEAN 15.1 MAX 182 MIN .00 AC-FT 10940

NOTE.--NO GAGE-HEIGHT RECORD AUG. 15 TO SEPT. 14.

09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO

LOCATION.--Lat 39°17'09", long 108°49'46", in NE¼SE¼ sec.12, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 50 ft (15 m) upstream from flume over Mack Wash, 1.1 mi (1.8 km) downstream from headgate of Lateral No. 48, and 4.6 mi (7.4 km) north of Mack.

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,717 ft (1,438 m), from topographic map.

REMARKS.--Records good. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Salt Creek basin. Surplus flows are wasted into West Salt Creek and Badger Wash. Water can be wasted into Mack Wash from flume below gage. The entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 168 ft^3/s (4.76 m^3/s) July 25, 1979; no flow for part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 156 ft^3/s (4.42 m^3/s) Aug. 21; no flow part of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	.00	.00	.00	.00	.00	.00	126	145	150	140	148
2	145	.00	.00	.00	.00	.00	.00	122	145	150	140	147
3	151	.00	.00	.00	.00	.00	.00	123	145	150	140	147
4	145	.00	.00	.00	.00	.00	28	134	143	150	105	147
5	139	.00	.00	.00	.00	.00	32	138	144	145	105	146
6	139	.00	.00	.00	.00	.00	38	139	143	145	115	143
7	132	.00	.00	.00	.00	.00	51	137	142	145	115	145
8	131	.00	.00	.00	.00	.00	50	139	146	145	115	146
9	138	.00	.00	.00	.00	.00	44	141	143	130	115	148
10	142	.00	.00	.00	.00	.00	47	136	142	130	130	146
11	150	.00	.00	.00	.00	.00	52	140	146	145	132	139
12	152	.00	.00	.00	.00	.00	70	144	152	145	142	135
13	152	.00	.00	.00	.00	.00	71	144	147	145	150	134
14	144	.00	.00	.00	.00	.00	84	142	140	145	154	133
15	142	.00	.00	.00	.00	.00	96	145	145	145	145	133
16	144	.00	.00	.00	.00	.00	88	144	145	145	145	134
17	146	.00	.00	.00	.00	.00	81	138	136	145	146	134
18	144	.00	.00	.00	.00	.00	77	140	136	145	146	134
19	137	.00	.00	.00	.00	.00	80	141	131	145	147	133
20	51	.00	.00	.00	.00	.00	100	143	132	145	148	132
21	.07	.00	.00	.00	.00	.00	119	144	136	145	156	132
22	.00	.00	.00	.00	.00	.00	130	144	141	145	151	132
23	.00	.00	.00	.00	.00	.00	132	145	135	145	146	132
24	.00	.00	.00	.00	.00	.00	126	145	133	145	144	130
25	.00	.00	.00	.00	.00	.00	122	146	134	145	145	131
26	.00	.00	.00	.00	.00	.00	123	143	142	145	145	131
27	.00	.00	.00	.00	.00	.00	125	145	140	145	144	131
28	.00	.00	.00	.00	.00	.00	128	144	140	145	145	132
29	.00	.00	.00	.00	---	.00	131	141	150	145	144	131
30	.00	.00	.00	.00	---	.00	130	143	150	145	144	130
31	.00	---	.00	.00	---	.00	---	143	---	145	145	---
TOTAL	2768.07	.00	.00	.00	.00	.00	2355.00	4339	4249	4485	4284	4116
MEAN	89.3	.000	.000	.000	.000	.000	78.5	140	142	145	138	137
MAX	152	.00	.00	.00	.00	.00	132	146	152	150	156	148
MIN	.00	.00	.00	.00	.00	.00	.00	122	131	130	105	130
AC-FT	5490	.00	.00	.00	.00	.00	4670	8610	8430	8900	8500	8160

CAL YR 1980 TOTAL 25439.07 MEAN 69.5 MAX 166 MIN .00 AC-FT 50460
WTR YR 1981 TOTAL 26596.07 MEAN 72.9 MAX 156 MIN .00 AC-FT 52750

09105000 PLATEAU CREEK NEAR CAMEO, COLO.

LOCATION.--Lat 39°11'01", long 108°16'06", in NW¼SW¼ sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft (91 m) from State Highway 65, 1.1 mi (1.8 km) upstream from mouth, and 4.0 mi (6.4 km) northeast of Cameo.

DRAINAGE AREA.--592 mi² (1,533 km²).

PERIOD OF RECORD.--October 1935 to current year. Prior to May 1936, monthly discharge only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,836 ft (1,474 m), from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres (101 km²), return flow from irrigated areas, and for power development. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--46 years, 179 ft³/s (5.069 m³/s), 129,700 acre-ft/yr (160 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft³/s (158 m³/s) June 15, 1973, gage height, 7.99 ft (2.435 m); minimum daily, 8.2 ft³/s (0.23 m³/s) Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 768 ft³/s (21.7 m³/s) at 0700 May 3, gage height, 4.41 ft (1.344 m); minimum daily, 37 ft³/s (1.05 m³/s) June 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	123	107	90	65	73	80	232	144	55	46	58
2	90	122	104	89	68	71	84	244	120	71	48	55
3	90	121	109	90	70	71	102	654	116	69	46	55
4	92	121	108	91	75	71	88	459	139	62	44	56
5	93	120	109	94	80	67	69	239	127	54	67	56
6	93	121	110	90	80	73	84	248	105	50	70	64
7	94	121	118	77	78	68	95	188	91	48	69	70
8	96	120	108	75	67	69	115	159	81	47	42	78
9	92	119	106	80	66	64	111	146	71	44	41	95
10	93	118	91	85	64	65	125	129	69	52	59	96
11	94	122	103	83	60	65	143	118	63	53	85	100
12	94	129	100	84	65	64	160	107	60	53	84	90
13	115	156	101	80	65	63	156	96	59	57	82	90
14	114	144	100	80	65	64	168	89	58	64	80	92
15	144	112	100	80	64	65	183	102	60	60	54	98
16	140	105	100	80	64	67	210	114	56	57	56	99
17	148	104	100	82	65	73	251	125	47	62	67	97
18	142	104	100	80	65	67	251	121	43	65	81	94
19	139	114	100	75	67	66	260	115	45	69	81	68
20	138	127	103	72	68	68	287	116	42	55	69	69
21	139	127	100	70	64	68	211	135	43	49	57	76
22	136	129	100	69	57	65	193	135	39	43	50	96
23	134	132	100	68	60	67	170	133	39	42	49	96
24	129	135	97	69	64	72	193	132	37	45	50	95
25	130	129	101	69	70	69	214	135	37	45	63	90
26	132	126	98	64	78	73	250	137	37	51	79	64
27	133	121	95	66	70	91	239	150	38	58	49	63
28	127	122	93	70	70	84	197	174	47	51	47	72
29	122	107	90	70	---	75	207	170	55	49	51	91
30	126	109	84	69	---	86	206	145	56	46	54	91
31	125	---	87	67	---	75	---	134	---	45	55	---
TOTAL	3631	3660	3122	2408	1894	2179	5102	5381	2024	1671	1875	2414
MEAN	117	122	101	77.7	67.6	70.3	170	174	67.5	53.9	60.5	80.5
MAX	148	156	118	94	80	91	287	654	144	71	85	100
MIN	90	104	84	64	57	63	69	89	37	42	41	55
AC-FT	7200	7260	6190	4780	3760	4320	10120	10670	4010	3310	3720	4790

CAL YR 1980 TOTAL 80308 MEAN 219 MAX 1410 MIN 64 AC-FT 159300
WTR YR 1981 TOTAL 35361 MEAN 96.9 MAX 654 MIN 37 AC-FT 70140

09106104 KIEFER EXTENSION GRAND VALLEY CANAL NEAR FRUITA, CO

LOCATION.--Lat 39°13'31", long 108°46'28", in SW¼SW¼ sec.24, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 300 ft (91 m) upstream from small timber bridge, 1,050 ft (320 m) upstream from Golden Hill Canal headgate, 1,100 ft (340 m) north of O Road, and 5.0 mi (8.0 km) north of Fruita.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,595 ft (1,401 m), from topographic map.

REMARKS.--Records good. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in Reed Wash basin. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 153 ft³/s (4.33 m³/s), Sept. 22, 1980; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	140	.00	.00	.00	.00	124	128	140	139	132	135
2	144	140	.00	.00	.00	.00	126	126	142	147	138	135
3	148	139	.00	.00	.00	.00	125	130	141	147	138	134
4	144	139	.00	.00	.00	.00	126	130	140	145	129	135
5	143	44	.00	.00	.00	.00	126	127	140	142	135	140
6	145	.00	.00	.00	.00	.00	125	133	143	139	133	147
7	140	.00	.00	.00	.00	.00	125	131	146	140	132	144
8	142	.00	.00	.00	.00	.00	126	136	148	139	128	140
9	142	.00	.00	.00	.00	.00	128	138	148	134	127	143
10	144	.00	68	.00	.00	.00	128	134	142	138	128	142
11	147	.00	135	.00	.00	.00	126	131	140	138	134	137
12	147	.00	135	.00	.00	.00	122	128	140	141	142	142
13	145	.00	135	.00	.00	.00	119	136	141	143	142	139
14	141	.00	135	.00	.00	.00	124	130	136	141	143	138
15	139	.00	135	.00	.00	.00	129	128	139	139	140	138
16	145	.00	135	.00	.00	.00	124	126	138	138	137	138
17	147	.00	68	.00	.00	.00	124	130	130	138	141	139
18	145	.00	.00	.00	.00	68	119	133	119	141	140	141
19	146	.00	.00	.00	.00	134	126	131	119	141	138	143
20	140	.00	.00	.00	.00	134	127	130	120	144	141	142
21	138	.00	.00	.00	.00	132	122	133	124	144	145	138
22	141	.00	.00	.00	.00	130	121	139	129	138	139	135
23	138	.00	.00	.00	.00	130	122	135	127	133	137	138
24	135	.00	.00	.00	.00	133	125	136	126	135	139	136
25	135	.00	.00	.00	.00	130	126	137	133	133	141	137
26	134	.00	.00	.00	.00	129	126	138	135	130	140	141
27	138	.00	.00	.00	.00	140	125	145	138	133	142	140
28	137	.00	.00	.00	.00	135	124	144	135	138	142	140
29	138	.00	.00	.00	---	135	129	133	138	138	142	141
30	139	.00	.00	.00	---	134	127	135	131	138	140	141
31	140	---	.00	.00	---	128	---	141	---	134	138	---
TOTAL	4387	602.00	946.00	.00	.00	1792.00	3746	4132	4068	4308	4263	4179
MEAN	142	20.1	30.5	.000	.000	57.8	125	133	136	139	138	139
MAX	148	140	135	.00	.00	140	129	145	148	147	145	147
MIN	134	.00	.00	.00	.00	.00	119	126	119	130	127	134
AC-FT	8700	1190	1880	.00	.00	3550	7430	8200	8070	8540	8460	8290

CAL YR 1980 TOTAL 28597.00 MEAN 78.1 MAX 153 MIN .00 AC-FT 56720
WTR YR 1981 TOTAL 32423.00 MEAN 88.8 MAX 148 MIN .00 AC-FT 64310

09106108 KIEFER EXTENSION GRAND VALLEY CANAL NEAR LOMA, CO

LOCATION.--Lat 39°13'40", long 108°49'06", in NW¼SE¼ sec.21, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 600 ft (180 m) south of "O½" Road, 1,800 ft (550 m) west of 13 Road, and 2.5 mi (4.0 km) north of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,585 ft (1,398 m), from topographic map.

REMARKS.--Records good. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in lower Reed Wash basin. Surplus flows are wasted into Reed Wash. Entire flow regulated by diversion gages. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 87 ft³/s (2.46 m³/s), July 12, 1981; no flow part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	72	.00	.00	.00	.00	52	72	73	83	74	78
2	83	68	.00	.00	.00	.00	54	72	72	84	74	75
3	86	66	.00	.00	.00	.00	55	74	70	82	75	76
4	84	65	.00	.00	.00	.00	55	72	70	81	72	79
5	84	29	.00	.00	.00	.00	56	68	71	82	74	80
6	84	.00	.00	.00	.00	.00	56	68	73	81	73	84
7	83	.00	.00	.00	.00	.00	58	70	75	81	73	81
8	83	.00	.00	.00	.00	.00	60	74	75	82	70	77
9	84	.00	.00	.00	.00	.00	61	77	76	75	68	78
10	83	.00	23	.00	.00	.00	61	76	75	80	73	76
11	84	.00	46	.00	.00	.00	60	77	76	82	75	73
12	84	.00	46	.00	.00	.00	60	75	76	87	76	75
13	81	.00	46	.00	.00	.00	63	74	79	83	77	77
14	82	.00	46	.00	.00	.00	67	74	80	80	77	79
15	81	.00	46	.00	.00	.00	69	74	81	78	76	79
16	81	.00	46	.00	.00	.00	70	76	79	76	74	77
17	78	.00	23	.00	.00	.00	71	76	78	75	78	76
18	77	.00	.00	.00	.00	.00	70	78	72	73	76	76
19	78	.00	.00	.00	.00	44	71	78	71	73	73	77
20	75	.00	.00	.00	.00	48	72	77	72	73	76	76
21	73	.00	.00	.00	.00	48	71	80	75	75	77	77
22	73	.00	.00	.00	.00	47	70	81	78	75	76	77
23	72	.00	.00	.00	.00	47	72	79	77	75	76	79
24	71	.00	.00	.00	.00	48	73	76	74	77	75	77
25	69	.00	.00	.00	.00	47	73	72	73	81	75	76
26	66	.00	.00	.00	.00	50	74	73	76	77	76	78
27	66	.00	.00	.00	.00	57	75	75	79	79	77	77
28	65	.00	.00	.00	.00	54	74	77	79	79	76	76
29	65	.00	.00	.00	---	54	74	77	82	80	76	77
30	65	.00	.00	.00	---	54	72	73	79	79	80	79
31	68	---	.00	.00	---	53	---	72	---	76	81	---
TOTAL	2390	300.00	322.00	.00	.00	651.00	1969	2317	2266	2444	2329	2322
MEAN	77.1	10.0	10.4	.000	.000	21.0	65.6	74.7	75.5	78.8	75.1	77.4
MAX	86	72	46	.00	.00	57	75	81	82	87	81	84
MIN	65	.00	.00	.00	.00	.00	52	68	70	73	68	73
AC-FT	4740	595	639	.00	.00	1290	3910	4600	4490	4850	4620	4610

CAL YR 1980	TOTAL	15630.00	MEAN	42.7	MAX	86	MIN	.00	AC-FT	31000
WTR YR 1981	TOTAL	17310.00	MEAN	47.4	MAX	87	MIN	.00	AC-FT	34330

09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, 16 mi (26 km) northeast of Almont.

DRAINAGE AREA.--254 mi² (658 km²).

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.--WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,187 ft (2,800.2 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by Water and Power Resources Service in September 1937. Capacity of reservoir, 106,200 acre-ft (131 hm³) between elevations 9,187 ft (2,800.2 m), bottom of outlet gates, and 9,330 ft (3,843.8 m), crest of spillway. No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given are usable contents.

COOPERATION.--Records furnished by Uncompahgre Valley Water Users Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 111,000 acre-ft (137 hm³) July 1, 1957, elevation, 9,332.35 ft (2,844.500 m); minimum after first filling, 8,780 acre-ft (10.8 hm³) Oct. 19, 20, 1956, elevation, 9,240.70 ft (2,816.565 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 77,600 acre-ft (95.7 hm³) July 2, 3, elevation, 9,314.70 ft (2,839.121 m); minimum 49,900 acre-ft (61.5 hm³), Apr. 1-5, elevation, 9,296.00 ft (2,833.421 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1980 TO SEPTMEBER 1981

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,311.60	72,600	-
Oct. 31	9,303.20	59,300	-13,300
Nov. 30	9,302.30	58,100	-1,200
Dec. 31	9,301.30	56,800	-1,300
CAL YR 1980		-	-19,000
Jan. 31	9,299.10	53,900	-2,900
Feb. 28	9,296.90	51,100	-2,800
Mar. 31	9,296.10	50,000	-1,100
Apr. 30	9,301.00	56,500	+6,500
May 31	9,307.70	66,300	+9,800
June 30	9,314.50	77,300	+11,000
July 31	9,311.30	72,000	-5,300
Aug. 31	9,304.60	61,600	-10,400
Sept. 30	9,297.90	52,400	-9,200
WTR YR 1981			-20,200

09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on left bank 1,000 ft (300 m) downstream from Taylor Park Reservoir Dam, 3.4 mi (5.5 km) upstream from Lottis Creek, and 17 mi (27 km) northeast of Almont.

DRAINAGE AREA.--254 mi^2 (658 km^2).

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft (2,794.915 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 11, 1952, at site 1,600 ft (490 m) downstream at datum 1.00 ft (0.305 m) lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Records good, except those for period of no gage-height record, which are fair. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek above reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1930-34), 156 ft^3/s (4.418 m^3/s), 113,000 acre-ft/yr (139 hm^3/yr); 43 years (water years 1939-81), 191 ft^3/s (5.409 m^3/s), 138,400 acre-ft/yr (171 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft^3/s (64.3 m^3/s) July 1, 1957, gage height, 7.56 ft (2.304 m); no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 488 ft^3/s (13.8 m^3/s) at 1300 Oct. 1, gage height, 4.62 ft (1.408 m); minimum daily, 38 ft^3/s (1.08 m^3/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	80	92	115	102	97	60	47	146	150	240	237
2	477	90	92	115	100	97	50	47	149	187	240	238
3	477	78	92	116	100	97	50	47	150	231	240	240
4	475	88	94	116	100	97	50	48	150	236	239	241
5	474	94	94	116	100	84	50	48	150	236	239	249
6	472	109	96	116	99	71	50	48	150	237	238	250
7	469	97	96	116	99	71	50	49	150	245	238	251
8	468	102	97	115	99	71	50	49	150	246	238	247
9	465	109	97	115	99	71	50	48	150	247	238	253
10	463	112	97	115	99	71	50	48	150	243	238	251
11	457	113	99	115	99	72	50	48	150	228	238	245
12	458	113	99	113	99	72	50	49	150	240	238	251
13	454	114	100	113	99	72	50	48	150	240	238	255
14	436	116	100	113	99	72	50	48	150	245	237	247
15	374	116	102	111	99	72	50	48	149	250	237	255
16	300	101	102	111	99	73	50	49	150	250	237	258
17	269	83	104	111	99	73	50	49	148	239	237	250
18	230	83	104	111	99	73	50	49	148	230	237	257
19	81	83	106	109	99	73	50	48	148	228	238	257
20	38	85	106	109	99	73	50	49	147	228	237	246
21	63	85	106	109	99	75	50	49	147	228	237	253
22	56	85	106	109	99	75	50	49	149	216	237	260
23	53	86	107	106	99	75	50	49	150	217	236	256
24	53	86	107	106	99	75	50	49	148	229	237	254
25	53	88	109	106	97	75	50	49	148	233	241	259
26	45	88	109	104	97	76	50	76	149	236	246	250
27	45	89	111	104	97	76	50	130	149	235	246	255
28	50	89	111	104	97	76	50	142	150	236	240	256
29	53	91	113	104	---	76	50	142	150	240	236	256
30	62	91	113	102	---	76	50	142	150	240	236	251
31	71	---	115	102	---	76	---	142	---	240	236	---
TOTAL	8421	2844	3176	3427	2771	2383	1510	1983	4475	7186	7390	7528
MEAN	272	94.8	102	111	99.0	76.9	50.3	64.0	149	232	238	251
MAX	480	116	115	116	102	97	60	142	150	250	246	260
MIN	38	78	92	102	97	71	50	47	146	150	236	237
AC-FT	16700	5640	6300	6800	5500	4730	3000	3930	8880	14250	14660	14930

CAL YR 1980 TOTAL 93641 MEAN 256 MAX 646 MIN 38 AC-FT 185700
WTR YR 1981 TOTAL 53094 MEAN 145 MAX 480 MIN 38 AC-FT 105300

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO APR. 30.

09110000 TAYLOR RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'41", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 15 ft (5 m) downstream from bridge on State Highway 306, and 800 ft (240 m) upstream from confluence with East River.

DRAINAGE AREA.--477 mi² (1,235 km²).

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft (2,441.680 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi (39 km) above station. Diversions for irrigation of about 360 acres (1.46 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--71 years, 333 ft³/s (9.431 m³/s), 241,300 acre-ft/yr (298 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,760 ft³/s (106 m³/s) June 9, 1920, gage height, 5.00 ft (1.524 m), from rating curve extended above 2,300 ft³/s (65 m³/s); maximum gage height, 5.32 ft (1.622 m) July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 ft³/s (1.42 m³/s) for several days in August 1913, gage height, 1.2 ft (0.366 m); minimum daily, 24 ft³/s (0.68 m³/s) Mar. 12, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 586 ft³/s (16.6 m³/s) at 0300 Oct. 1, gage height, 2.68 ft (0.817 m); minimum daily, 92 ft³/s (2.61 m³/s) Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	581	161	110	150	145	140	96	145	368	248	322	282
2	578	170	110	150	145	140	93	149	363	306	320	279
3	577	164	115	150	145	140	95	176	373	327	317	282
4	575	164	120	150	145	135	92	166	353	322	314	279
5	575	170	120	150	145	130	96	151	359	317	311	281
6	572	182	120	150	145	120	93	155	388	315	306	284
7	571	172	120	150	150	100	95	152	409	323	306	288
8	570	175	120	150	150	98	94	142	407	332	303	287
9	567	179	120	150	150	98	95	137	400	328	306	287
10	566	182	120	150	150	98	103	135	388	325	310	293
11	557	182	120	150	150	100	108	137	372	300	320	287
12	556	183	120	150	150	100	114	135	354	315	310	286
13	561	185	125	150	150	100	112	135	335	318	306	284
14	546	186	125	155	145	100	112	135	321	319	303	282
15	492	180	125	155	145	100	115	137	304	332	305	281
16	395	150	130	160	145	100	123	147	293	330	311	278
17	339	120	130	160	140	100	136	152	287	328	311	277
18	334	110	130	155	140	100	137	147	283	319	299	274
19	192	100	135	155	140	100	135	152	277	307	296	273
20	125	100	135	150	140	105	133	150	268	302	292	273
21	152	100	135	150	140	105	120	152	264	301	292	273
22	150	100	130	150	140	105	127	155	262	293	293	270
23	139	105	130	145	140	105	118	152	258	282	288	271
24	141	110	135	145	140	105	126	152	252	302	289	273
25	146	110	135	145	140	105	129	157	248	305	289	269
26	142	110	135	145	140	105	136	170	246	319	288	268
27	135	110	140	145	140	105	136	246	250	333	288	268
28	134	110	140	145	140	100	126	299	249	317	287	268
29	145	110	150	145	---	100	133	339	259	315	277	266
30	145	110	150	145	---	100	140	339	253	320	277	266
31	150	---	150	140	---	100	---	351	---	323	282	---
TOTAL	11408	4290	3980	4640	4035	3339	3468	5447	9443	9723	9318	8329
MEAN	368	143	128	150	144	108	116	176	315	314	301	278
MAX	581	186	150	160	150	140	140	351	409	333	322	293
MIN	125	100	110	140	140	98	92	135	246	248	277	266
AC-FT	22630	8510	7890	9200	8000	6620	6880	10800	18730	19290	18480	16520

CAL YR 1980 TOTAL 153399 MEAN 419 MAX 1400 MIN 90 AC-FT 304300
WTR YR 1981 TOTAL 77420 MEAN 212 MAX 581 MIN 92 AC-FT 153600

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO APR. 1.

09112200 EAST RIVER BELOW CEMENT CREEK, NEAR CRESTED BUTTE, CO

LOCATION.--Lat 38°47'24", long 106°52'21", in SE¼SE¼ sec.34, T.14 S., R.85 W., Gunnison County, Hydrologic Unit 14020001, on left bank 15 ft (4.57 m) below private bridge, 1.1 mi (1.8 km) downstream from Cement Creek and 8 mi (13 km) southeast of Crested Butte.

DRAINAGE AREA.--235 mi (609 km) from topographic maps.

PERIOD OF RECORD.--October 1963 to September 1972, October 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,450 ft (2,576 m) from topographic map.

REMARKS.--Records good except those for period of no gage-height record which are fair. Diversions for irrigation of about 4,500 acres (18.2 km) above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years (water years 1963-72, 1980-81) 317 ft³/s (8.977 m³/s), 229,700 acre-ft/yr (283 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft³/s (95.2 m³/s) June 12, 1980, gage height, 8.30 ft (2.530 m), from floodmarks; minimum daily, 38 ft³/s (1.08 m³/s) Jan. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) June 8, gage height, 6.54 ft (1.993 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum daily, 43 ft³/s (1.22 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	90	71	54	49	50	45	455	832	252	113	76
2	92	89	66	55	48	50	52	507	852	304	111	73
3	90	85	70	56	50	50	53	663	965	249	106	74
4	89	87	68	54	48	50	47	511	835	224	104	74
5	87	83	69	53	46	48	44	423	901	210	106	74
6	87	77	70	53	45	50	52	416	1020	201	99	78
7	86	82	68	52	45	49	57	335	1100	185	94	88
8	84	81	57	52	44	48	57	305	1090	186	93	92
9	82	80	56	53	44	47	66	285	1080	207	96	84
10	82	78	58	51	43	50	95	272	1030	215	96	86
11	81	79	61	51	45	49	120	267	953	197	103	82
12	81	82	62	50	46	50	123	262	872	198	118	84
13	91	91	61	50	46	49	140	255	758	190	115	92
14	92	87	59	49	45	47	162	250	635	172	106	93
15	113	70	60	46	46	47	185	266	492	174	99	86
16	103	66	61	47	47	48	191	296	424	182	98	82
17	100	61	60	49	48	48	199	286	422	194	94	78
18	102	63	60	50	49	48	236	273	430	188	88	77
19	98	67	59	49	50	48	269	286	392	173	82	77
20	98	68	58	49	52	48	266	302	427	157	80	75
21	102	64	58	50	49	45	232	317	434	150	78	74
22	106	61	60	48	48	46	242	304	427	151	80	73
23	101	72	60	48	49	47	226	306	389	141	77	72
24	90	73	55	48	51	47	262	316	366	134	76	73
25	95	63	62	48	51	44	288	352	337	132	78	71
26	99	66	61	48	52	49	326	395	318	162	76	70
27	101	66	60	48	52	49	340	456	327	169	75	68
28	88	71	59	48	48	45	323	695	318	145	74	67
29	87	71	58	48	---	47	350	795	292	135	72	67
30	94	72	54	48	---	47	383	801	259	125	76	67
31	92	---	55	49	---	46	---	938	---	117	80	---
TOTAL	2888	2245	1896	1554	1336	1486	5431	12590	18977	5619	2843	2327
MEAN	93.2	74.8	61.2	50.1	47.7	47.9	181	406	633	181	91.7	77.6
MAX	113	91	71	56	52	50	383	938	1100	304	118	93
MIN	81	61	54	46	43	44	44	250	259	117	72	67
AC-FT	5730	4450	3760	3080	2650	2950	10770	24970	37640	11150	5640	4620

CAL YR 1980 TOTAL 145973 MEAN 399 MAX 2620 MIN 51 AC-FT 289500
WTR YR 1981 TOTAL 59192 MEAN 162 MAX 1100 MIN 43 AC-FT 117400

09112500 EAST RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'51", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft (61 m) upstream from bridge on State Highway 135, and 400 ft (120 m) upstream from confluence with Taylor River.

DRAINAGE AREA.--289 mi^2 (749 km^2).

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft (2,440.317 m), National Geodetic Vertical Datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft (61 m) downstream at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 7,400 acres (29.9 km^2) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--59 years (water years 1911-22, 1935-81), 335 ft^3/s (9.487 m^3/s), 242,700 acre-ft/yr (299 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,500 ft^3/s (184 m^3/s) June 15, 1921, gage height, 6.6 ft (2.01 m), site and datum then in use, from rating curve extended above 3,000 ft^3/s (85 m^3/s); minimum daily, 19 ft^3/s (0.54 m^3/s) Aug. 13, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) at 0500 June 8, gage height, 4.91 ft (1.497 m), no peak above base of 1,600 ft^3/s (45 m^3/s); minimum daily, 47 ft^3/s (1.33 m^3/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	89	83	69	63	60	52	304	835	246	163	89
2	95	90	77	69	65	59	56	366	827	284	157	87
3	92	87	83	68	62	60	66	539	994	255	146	87
4	91	89	79	67	60	59	57	452	848	234	139	87
5	89	88	83	66	56	56	54	339	893	218	137	88
6	87	88	81	68	56	59	58	340	1010	198	130	89
7	90	88	81	66	52	59	63	281	1130	168	121	94
8	90	87	74	68	50	59	63	250	1140	158	120	98
9	89	89	75	68	48	59	65	237	1100	174	123	95
10	89	85	78	68	47	62	84	224	1060	184	122	95
11	89	85	80	66	50	60	109	216	989	177	131	94
12	89	87	87	64	52	61	118	213	882	180	137	96
13	91	90	83	64	50	58	117	211	760	177	138	85
14	93	91	77	62	56	59	141	201	639	168	132	85
15	108	82	75	58	56	58	162	204	505	162	127	83
16	107	77	74	56	55	57	170	228	428	170	126	83
17	102	75	74	60	57	60	170	232	389	180	120	81
18	102	78	72	62	58	58	202	222	398	181	110	79
19	99	80	70	64	58	57	221	221	366	179	105	80
20	98	80	69	62	61	62	238	238	380	189	101	78
21	96	78	71	62	61	60	182	259	387	181	99	78
22	94	81	70	62	58	58	187	260	388	173	100	77
23	93	87	69	62	57	59	170	265	358	166	97	75
24	88	89	72	62	58	61	181	271	334	158	92	73
25	88	79	76	64	59	56	192	281	306	172	92	65
26	93	81	73	63	60	60	224	320	287	193	94	56
27	95	78	70	64	60	62	243	375	305	211	92	56
28	88	87	71	62	57	57	232	609	300	194	91	56
29	86	83	70	64	---	59	249	771	291	180	91	57
30	90	83	68	64	---	61	268	782	269	170	92	58
31	90	---	70	63	---	54	---	945	---	171	93	---
TOTAL	2887	2531	2335	1987	1582	1829	4394	10656	18798	5851	3618	2404
MEAN	93.1	84.4	75.3	64.1	56.5	59.0	146	344	627	189	117	80.1
MAX	108	91	87	69	65	62	268	945	1140	284	163	98
MIN	86	75	68	56	47	54	52	201	269	158	91	56
AC-FT	5730	5020	4630	3940	3140	3630	8720	21140	37290	11610	7180	4770

CAL YR 1980 TOTAL 152129 MEAN 416 MAX 2800 MIN 52 AC-FT 301700
WTR YR 1981 TOTAL 58872 MEAN 161 MAX 1140 MIN 47 AC-FT 116800

09113500 OHIO CREEK NEAR BALDWIN, CO

LOCATION.--Lat 38°42'08", long 106°59'52", in NE¼SE¼ sec.33, T.15 S., R.86 W., Gunnison County, Hydrologic Unit 14020002, on right bank 600 ft (183 m) upstream from bridge, 800 ft (244 m) downstream from Mill Creek, 5.5 mi (8.8 km) southeast of Baldwin, and 11 mi (18 km) upstream from mouth.

DRAINAGE AREA.--121 mi^2 (313 km^2).

PERIOD OF RECORD.--April 1940 to September 1950, October 1958 to September 1971, October 1979 to September 1981 (discontinued). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WDR CO-67-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m) from topographic map. Prior to Apr. 3, 1942, nonrecording gage at present site and datum. Apr. 3, 1942, to Sept. 30, 1950, Oct. 1, 1958 to Sept. 30, 1971, water-stage recorder at present site and datum.

REMARKS.--Records good except those for period of no gage height record, which are poor. Diversions for irrigation of 3,850 acres (15.6 km^2) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years (water years 1941-50, 1959-71, 1980-81), 88.1 ft^3/s (2.495 m^3/s), 63,830 acre-ft/yr (78.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discnarge, 1,260 ft^3/s (35.7 m^3/s), May 19, 1948, gage height, 4.65 ft (1.417 m), from rating curve extended above 560 ft^3/s (15.9 m^3/s); minimum daily, 6.9 ft^3/s (0.195 m^3/s) Sept. 12, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in May 1952 and June 1957 reached a stage of 5.5 ft (1.676 m), from floodmarks, discharge, about 1,500 ft^3/s (42.5 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft^3/s (6.14 m^3/s) at 0100 June 8, gage height, 1.76 ft (0.536 m), no peak above base of 450 ft^3/s (12.7 m^3/s); minimum daily, 8.8 ft^3/s (0.25 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	29	17	12	11	12	9.6	109	120	62	18	29
2	18	29	16	12	11	13	18	117	140	91	17	22
3	18	28	17	13	11	13	16	172	162	59	16	21
4	19	28	17	12	11	12	20	134	120	50	18	18
5	19	28	17	12	10	12	21	114	130	46	13	18
6	19	27	17	12	10	12	19	113	154	40	9.8	24
7	19	27	16	12	10	12	23	78	175	36	9.3	49
8	19	26	15	12	10	12	21	66	174	32	8.8	36
9	18	26	14	12	9.8	12	26	65	167	25	14	30
10	18	25	15	12	9.4	12	36	61	157	31	28	30
11	17	26	15	11	9.8	12	44	61	141	25	30	32
12	17	26	15	12	10	12	42	61	121	32	32	40
13	23	32	14	12	10	12	43	56	101	35	32	39
14	23	28	14	11	10	11	45	48	86	32	31	43
15	33	22	15	11	10	11	61	55	68	35	30	34
16	31	29	15	11	11	11	64	73	60	42	25	30
17	30	23	15	12	11	12	68	68	59	50	21	28
18	32	21	15	12	11	12	73	55	59	34	20	25
19	29	20	14	12	12	12	82	59	58	28	17	24
20	30	21	14	12	11	12	79	60	61	22	16	22
21	31	19	15	12	11	11	70	60	63	21	16	23
22	31	18	15	12	11	11	75	58	61	22	16	21
23	29	19	14	12	11	11	72	55	53	20	16	21
24	27	19	13	12	12	11	77	54	49	51	15	27
25	30	17	15	12	12	11	87	61	46	37	15	22
26	31	17	15	12	12	12	95	68	46	27	16	20
27	31	17	15	12	12	12	95	100	56	24	16	18
28	25	18	14	12	11	11	92	139	53	23	13	18
29	27	18	13	12	---	11	96	131	70	18	13	18
30	31	18	13	11	---	11	104	157	59	20	26	19
31	29	---	12	11	---	10	---	124	---	18	34	---
TOTAL	773	701	461	367	301.0	361	1673.6	2632	2869	1088	601.9	801
MEAN	24.9	23.4	14.9	11.8	10.8	11.6	55.8	84.9	95.6	35.1	19.4	26.7
MAX	33	32	17	13	12	13	104	172	175	91	34	49
MIN	17	17	12	11	9.4	10	9.6	48	46	18	8.8	18
AC-FT	1530	1390	914	728	597	716	3320	5220	5690	2160	1190	1590

CAL YR 1980 TOTAL 45174.0 MEAN 123 MAX 807 MIN 12 AC-FT 89600
WTR YR 1981 TOTAL 12629.5 MEAN 34.6 MAX 175 MIN 8.8 AC-FT 25050

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO APR. 1.

09114500 GUNNISON RIVER NEAR GUNNISON, CO

LOCATION.--Lat 38°32'31", long 106°56'57", in NW¼NW¼ sec.2, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, on right bank 0.7 mi (1.1 km) downstream from Antelope Creek and 1.2 mi (1.9 km) west of Gunnison.

DRAINAGE AREA.--1,012 mi^2 (2,621 km^2).

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911, 1916.

GAGE.--Water-stage recorder. Altitude of gage is 7,655 ft (2,333 m), from topographic map. Nov. 25, 1910, to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916, to June 17, 1918) at bridge about 0.6 mi (1.0 km) downstream at various datums. Oct. 1, 1944, to July 28, 1970, water-stage recorder at sites 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi (60 km) above station. Diversions for irrigation of about 22,000 acres (89.0 km^2) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--55 years (water years 1911-28, 1945-81), 753 ft^3/s (21.32 m^3/s) 545,500 acre-ft/yr (673 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 11,400 ft^3/s (323 m^3/s) June 13, 1918, gage height, 4.05 ft (1.234 m), site and datum then in use, from rating curve extended above 5,000 ft^3/s (140 m^3/s); minimum daily, 80 ft^3/s (2.27 m^3/s) Dec. 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s (47.6 m^3/s) at 0500 June 8, gage height, 2.96 ft (0.902 m); minimum daily, 154 ft^3/s (4.36 m^3/s) Apr. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	285	214	240	220	240	173	313	1200	515	486	379
2	700	282	220	240	230	240	157	356	1190	609	481	359
3	660	286	214	240	240	240	164	550	1400	583	449	368
4	660	270	214	240	240	230	154	505	1270	532	432	375
5	660	267	214	240	230	210	154	374	1230	490	408	370
6	640	268	220	250	230	190	156	374	1370	447	396	382
7	620	264	220	240	220	190	160	337	1510	422	373	428
8	611	263	220	260	220	190	162	287	1550	412	362	438
9	607	266	220	250	210	200	160	260	1530	418	385	427
10	599	261	230	240	210	210	190	256	1530	458	398	448
11	594	265	250	220	210	200	229	247	1430	426	440	438
12	601	301	270	210	210	210	256	256	1320	423	476	453
13	609	302	260	220	210	190	254	264	1200	433	470	441
14	662	300	240	200	220	200	281	235	1050	429	461	443
15	698	294	230	210	230	200	293	232	902	435	468	432
16	695	280	230	220	220	190	312	303	765	437	495	430
17	688	280	230	230	230	200	311	326	695	509	472	426
18	652	268	230	240	230	190	321	318	654	578	442	414
19	474	262	230	240	230	190	329	324	574	524	420	400
20	341	244	230	240	240	200	365	294	572	511	397	373
21	288	238	230	260	240	200	278	319	581	502	370	364
22	291	226	230	250	240	190	284	331	577	472	378	356
23	289	226	230	240	230	190	268	342	532	466	382	352
24	287	226	240	230	230	200	291	351	498	471	373	354
25	291	226	250	220	230	200	307	338	481	478	377	334
26	287	226	240	220	240	190	335	413	464	540	377	311
27	288	226	240	220	240	200	325	540	506	622	374	311
28	285	220	240	220	230	200	262	808	549	577	372	310
29	287	226	240	230	---	190	278	1130	583	542	365	299
30	288	226	230	230	---	176	295	1080	558	520	364	307
31	288	---	240	220	---	176	---	1220	---	511	400	---
TOTAL	15640	7774	7196	7210	6360	6222	7504	13283	28271	15292	12843	11522
MEAN	505	259	232	233	227	201	250	428	942	493	414	384
MAX	700	302	270	260	240	240	365	1220	1550	622	495	453
MIN	285	220	214	200	210	176	154	232	464	412	362	299
AC-FT	31020	15420	14270	14300	12620	12340	14880	26350	56080	30330	25470	22850

CAL YR 1980 TOTAL 335902 MEAN 918 MAX 4400 MIN 150 AC-FT 666300
WTR YR 1981 TOTAL 139117 MEAN 381 MAX 1550 MIN 154 AC-FT 275900

NOTE.--NO GAGE-HEIGHT RECORD DEC. 6 TO JAN. 12, JAN. 14 TO MARCH 30.

09119000 TOMICHI CREEK AT GUNNISON, CO

LOCATION.--Lat 38°31'18", long 106°56'25", in NE¼SW¼ sec.11, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020003, on right bank 300 ft (91 m) downstream from highway bridge, 1.8 mi (2.9 km) southwest of Post Office in Gunnison, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--1,061 mi² (2,748 km²).

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharges only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft (2,325.191 m), National Geodetic Vertical Datum of 1929. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft (91 m) upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for period of no gage height record, which are poor. Diversions for irrigation of about 24,000 acres (97.1 km²) above station. Water diverted above station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--44 years (water years 1938-81), 165 ft³/s (4.673 m³/s), 119,500 acre-ft/yr (147 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) June 8, 1957, gage height, 4.10 ft (1.250 m); maximum gage height, 4.18 ft (1.274 m) May 23, 1970; minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 182 ft³/s (5.15 m³/s) at 2100 June 3, gage height, 1.98 ft (0.604 m), maximum gage-height 2.02 ft³/s (0.616 m³/s) at 1600, July 2; minimum daily, 7.2 ft³/s (0.204 m³/s) May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	124	60	54	50	60	72	8.8	129	83	97	62
2	59	118	58	56	50	60	84	7.2	126	161	90	59
3	56	114	56	56	51	60	81	9.4	157	130	84	53
4	55	113	58	54	50	58	73	14	167	99	82	48
5	55	114	58	56	50	58	61	11	148	80	75	47
6	56	111	56	60	49	60	76	16	135	58	69	48
7	56	107	54	58	48	60	76	18	130	47	66	52
8	58	110	52	58	47	58	81	15	130	61	64	53
9	62	107	50	60	47	58	75	14	123	132	69	56
10	61	104	52	58	47	62	76	14	109	103	78	56
11	59	101	56	58	49	60	81	12	100	70	90	57
12	60	102	56	58	50	62	85	13	94	63	97	63
13	61	110	56	56	51	59	85	16	87	92	95	61
14	62	116	56	54	50	58	80	12	82	99	89	64
15	85	104	56	52	50	58	77	21	78	109	78	61
16	91	87	58	54	52	58	70	30	80	135	75	56
17	92	72	58	56	54	58	54	33	70	156	70	55
18	89	64	56	56	55	58	45	36	62	150	73	57
19	84	54	58	54	56	58	50	38	60	130	68	55
20	83	54	58	54	56	58	51	39	65	104	54	54
21	98	54	58	56	56	56	51	42	65	91	52	52
22	103	54	60	54	54	58	49	45	62	83	57	50
23	96	54	58	54	56	60	47	48	58	83	58	50
24	92	58	54	52	58	60	47	51	56	88	57	52
25	94	56	56	52	60	56	46	50	51	84	56	50
26	102	58	58	52	62	64	41	53	50	89	54	34
27	118	58	60	52	60	64	38	51	51	119	52	26
28	116	56	61	50	58	60	26	59	54	114	52	31
29	113	58	58	50	---	64	22	105	66	104	47	37
30	123	62	54	50	---	65	10	119	66	95	49	52
31	127	---	56	50	---	66	---	108	---	90	56	---
TOTAL	2528	2554	1755	1694	1476	1854	1810	1108.4	2711	3102	2153	1551
MEAN	81.5	85.1	56.6	54.6	52.7	59.8	60.3	35.8	90.4	100	69.5	51.7
MAX	127	124	61	60	62	66	85	119	167	161	97	64
MIN	55	54	50	50	47	56	10	7.2	50	47	47	26
AC-FT	5010	5070	3480	3360	2930	3680	3590	2200	5380	6150	4270	3080

CAL YR 1980 TOTAL 65305.0 MEAN 178 MAX 1040 MIN 50 AC-FT 129500
WTR YR 1981 TOTAL 24296.4 MEAN 66.6 MAX 167 MIN 7.2 AC-FT 48190

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO APR. 1.

09124500 LAKE FORK AT GATEVIEW, CO

LOCATION.--Lat 38°17'56", long 107°13'46", in SE¼NE¼ sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft (8 m) downstream from private bridge, 0.2 mi (0.3 km) upstream from Indian Creek, and 6.3 mi (10.1 km) upstream from waterline of Blue Mesa Reservoir at elevation 7,519 ft (2,291.8 m).

DRAINAGE AREA.--334 mi² (865 km²).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft (2,385.871 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, at datum 2.00 ft (0.610 m) higher, and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions for irrigation of about 1,600 acres (6.48 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--44 years, 232 ft³/s (6.570 m³/s) 168,100 acre-ft/yr (207 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s (76.5 m³/s) June 29, 1957, gage height, 4.30 ft (1.311 m); minimum daily, 22 ft³/s (0.62 m³/s) Jan. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s (32.3 m³/s) at 0200 June 8, gage height, 2.57 ft (0.783 m), from peak stage indicator, no peak above base of 1,400 ft³/s (40 m³/s); minimum daily, 27.0 ft³/s (0.76 m³/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	60	42	36	30	32	34	279	510	230	190	124
2	73	58	41	37	30	33	34	272	563	234	178	118
3	71	57	41	38	30	33	35	325	692	217	169	112
4	71	58	42	38	30	31	35	269	556	192	164	106
5	66	58	45	38	30	31	37	213	644	175	150	106
6	66	57	45	37	31	33	39	190	812	160	139	109
7	67	56	45	36	32	31	37	165	961	148	128	108
8	64	55	44	35	32	31	39	149	982	147	122	103
9	61	54	44	33	32	31	39	136	977	143	116	102
10	62	53	40	33	31	33	41	126	931	158	119	115
11	63	52	38	34	30	33	46	120	873	150	138	114
12	62	54	38	35	27	33	47	113	772	263	150	118
13	63	55	38	33	29	33	46	109	678	350	149	121
14	63	56	39	32	30	35	46	102	589	304	142	123
15	71	46	39	32	31	37	47	115	469	393	133	123
16	69	42	39	32	32	37	47	122	395	419	131	124
17	67	41	39	33	34	37	48	117	383	393	133	120
18	63	41	39	33	35	36	60	109	386	342	118	114
19	61	41	38	32	35	37	61	109	377	290	115	109
20	61	41	37	32	35	38	63	117	390	244	109	105
21	62	41	37	31	33	36	58	130	390	212	103	103
22	61	42	37	30	33	35	60	126	380	189	110	99
23	59	42	38	31	34	35	60	123	353	192	107	98
24	53	43	37	31	35	35	65	141	306	222	103	109
25	56	43	35	31	34	33	87	175	285	228	100	104
26	60	42	35	28	33	35	143	230	267	271	95	98
27	62	42	36	29	31	35	159	284	266	344	92	95
28	61	42	36	30	32	33	161	415	255	304	92	91
29	56	43	36	31	---	33	180	497	241	260	90	88
30	59	43	36	30	---	34	220	489	228	227	100	87
31	60	---	36	30	---	34	---	559	---	206	126	---
TOTAL	1967	1458	1212	1021	891	1053	2074	6426	15911	7607	3911	3246
MEAN	63.5	48.6	39.1	32.9	31.8	34.0	69.1	207	530	245	126	108
MAX	74	60	45	38	35	38	220	559	982	419	190	124
MIN	53	41	35	28	27	31	34	102	228	143	90	87
AC-FT	3900	2890	2400	2030	1770	2090	4110	12750	31560	15090	7760	6440

CAL YR 1980 TOTAL 84216 MEAN 230 MAX 1770 MIN 35 AC-FT 167000
WTR YR 1981 TOTAL 46777 MEAN 128 MAX 982 MIN 27 AC-FT 92780

NOTE.--NO GAGE-HEIGHT RECORD NOV. 17 TO APR. 2.

09126000 CIMARRON RIVER NEAR CIMARRON, CO

LOCATION.--Lat 38°15'36", long 107°32'43", in NW¼NE¼ sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 14020002, on right bank 100 ft (30 m) upstream from Forest Service bridge, 0.6 mi (1.0 km) upstream from headgate on Cimarron ditch, 2.1 mi (3.4 km) downstream from Silver Jack Dam, and 13 mi (21 km) south of Cimarron.

DRAINAGE AREA.--66.6 mi^2 (172.5 km^2).

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,631.48 ft (2,630.875 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1972, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversion above station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, total capacity, 13,520 acre-ft (16.7 hm^3), 2.1 mi (3.4 km) upstream since Dec. 23, 1970. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1955-70), 88.6 ft^3/s (2.509 m^3/s), 64,190 acre-ft/yr (79.1 hm^3/yr), prior to completion of Silver Jack Dam; 11 years (water years 1971-81), 84.9 ft^3/s (2.404 m^3/s), 61,510 acre-ft/yr (75.8 hm^3/yr), subsequent to completion of Silver Jack Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft^3/s (50.7 m^3/s) June 28, 1957, gage height, 8.32 ft (2.536 m), site and datum then in use; no flow Dec. 24, 1970, to Jan. 9, 1971 (result of storage in Silver Jack Dam); minimum daily prior to construction of Silver Jack Dam, 8.0 ft^3/s (0.23 m^3/s) Dec. 27, 28, 1962, Jan. 13, 1963; minimum daily, 4.4 ft^3/s (0.12 m^3/s) Apr. 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) at 0100 June 21, gage height, 3.84 ft (1.170 m), maximum gage height, 3.92 ft (1.195 m), (backwater from ice); minimum daily discharge, 7.4 ft^3/s (0.21 m^3/s) Feb. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	13	11	9.0	8.8	9.6	68	99	119	88	83
2	14	13	13	11	9.4	8.8	9.9	66	100	114	88	82
3	17	13	13	12	8.2	8.8	9.9	79	104	109	88	82
4	17	13	13	12	8.2	8.8	9.6	92	104	107	88	82
5	17	13	14	12	8.2	8.8	9.4	107	104	107	86	82
6	47	13	15	11	8.2	8.8	9.4	105	104	107	86	82
7	76	13	14	11	8.6	8.8	9.6	104	104	106	86	76
8	75	13	14	10	8.4	8.8	9.6	104	105	106	86	64
9	73	13	13	10	8.2	8.8	10	104	108	94	86	64
10	73	13	12	10	7.9	8.8	11	104	109	99	74	63
11	75	14	11	10	7.4	8.8	12	104	128	89	65	63
12	76	14	12	11	7.4	8.8	13	104	143	89	65	63
13	76	15	12	10	7.9	8.8	13	104	143	102	64	63
14	75	15	12	9.8	8.6	8.8	14	95	143	111	64	58
15	65	15	12	9.9	9.0	8.8	18	87	145	113	64	55
16	54	16	12	10	9.2	8.8	32	88	145	113	64	54
17	52	14	12	9.9	8.8	9.2	32	87	145	113	64	54
18	54	13	12	9.6	8.5	9.2	25	79	145	113	64	54
19	53	13	12	9.6	8.5	8.8	29	69	145	111	63	53
20	43	13	12	9.4	8.5	8.8	26	68	145	111	64	30
21	30	13	11	9.2	8.5	8.8	22	71	148	115	64	15
22	30	13	12	9.2	8.8	8.8	21	71	148	98	64	15
23	29	14	12	9.2	8.8	9.2	18	69	143	89	64	15
24	30	14	11	9.0	8.8	9.2	18	69	147	89	70	15
25	30	14	11	8.5	8.8	9.2	16	69	134	89	75	15
26	30	14	11	8.0	8.8	9.6	16	69	121	89	75	15
27	22	14	11	8.4	8.8	9.6	15	70	122	88	75	15
28	13	14	11	8.6	9.2	9.2	15	84	122	88	75	33
29	13	14	11	8.5	---	9.6	15	96	119	88	75	52
30	13	14	11	8.2	---	9.2	40	97	119	88	76	52
31	13	---	11	8.4	---	9.6	---	97	---	88	81	---
TOTAL	1297	410	376	304.4	238.6	278.8	508.0	2680	3791	3132	2291	1549
MEAN	41.8	13.7	12.1	9.82	8.52	8.99	16.9	86.5	126	101	73.9	51.6
MAX	76	16	15	12	9.4	9.6	40	107	148	119	88	83
MIN	12	13	11	8.0	7.4	8.8	9.4	66	99	88	63	15
AC-FT	2570	813	746	604	473	553	1010	5320	7520	6210	4540	3070

CAL YR 1980 TOTAL 28480.0 MEAN 77.8 MAX 652 MIN 8.0 AC-FT 56490
WTR YR 1981 TOTAL 16855.8 MEAN 46.2 MAX 148 MIN 7.4 AC-FT 33430

NOTE.--NO GAGE-HEIGHT RECORD DEC. 3 TO JAN. 13.

09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat 38°31'45", long 107°38'54", in NE¼NW¼ sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi (0.6 km) downstream from east portal of Gunnison tunnel, 4.7 mi (7.6 km) downstream from Crystal Creek, and 12 mi (19 km) northeast of Montrose.

DRAINAGE AREA.--3,965 mi² (10,269 km²).

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft (1,989.143 m) National Geodetic Vertical Datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft (91 m) upstream from diversion dam at east portal of Gunnison tunnel at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft (150 m) downstream from diversion dam at east portal of Gunnison tunnel at different datum. Jan. 20, 1943, to Sept. 30, 1956, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres (304 km²) in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres (255 km²), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.

AVERAGE DISCHARGE.--78 years, 1,364 ft³/s (38.63 m³/s), 988,200 acre-ft/yr (1,220 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,000 ft³/s (538 m³/s) June 15, 1921, gage height, about 15.8 ft (4.81 m), present datum, from rating curve extended above 14,000 ft³/s (396 m³/s); no flow Sept. 25, 26, 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s (57.2 m³/s) at 2200 Nov. 6, gage height, 4.70 ft (1.432 m); minimum daily 148 ft³/s (4.19 m³/s) Apr. 11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	904	1520	1760	1790	1260	1250	222	213	242	218	247	318
2	880	1400	1740	1800	1250	1250	292	199	236	222	247	402
3	832	1180	1770	1800	1220	1250	242	195	363	226	247	377
4	802	1560	1780	1790	1220	1240	216	175	441	229	247	345
5	790	1740	1770	1770	1220	1090	215	196	311	231	247	345
6	922	1890	1770	1740	1220	934	182	212	229	233	243	350
7	1050	2020	1790	1770	1230	930	220	204	229	233	243	348
8	1470	2020	1790	1740	1230	928	201	216	229	234	243	331
9	1080	2020	1770	1790	1250	928	187	230	232	235	245	366
10	1090	2000	1770	1790	1000	928	154	233	233	212	247	388
11	1100	1930	1770	1780	1260	928	148	233	233	230	269	388
12	1110	1930	1760	1780	1270	840	150	240	211	243	282	388
13	740	1930	1780	1750	1270	786	182	238	181	242	282	392
14	556	1920	1780	1740	1270	756	200	234	181	249	282	404
15	614	1830	1770	1760	1270	678	192	230	187	254	282	412
16	758	1750	1760	1790	1270	656	219	229	181	248	282	412
17	796	1770	1780	1780	1270	656	215	224	173	254	282	412
18	913	1780	1800	1810	1270	652	214	230	182	250	282	412
19	920	1830	1830	1780	1260	575	217	229	204	250	281	412
20	860	1850	1790	1740	1250	572	566	238	212	250	290	412
21	802	1830	1790	1740	1250	568	206	238	221	250	282	412
22	754	1810	1750	1750	1250	568	189	236	235	250	282	412
23	579	1770	1780	1780	1250	451	222	233	240	250	282	412
24	708	1760	1800	1800	1250	383	201	226	243	243	282	412
25	957	1720	1830	1820	1250	315	205	215	236	243	282	412
26	933	1690	1860	1840	1250	223	208	224	236	243	258	412
27	979	1760	1800	1840	1250	201	202	238	236	245	222	412
28	949	1710	1790	1610	1250	222	246	252	236	247	213	412
29	1400	1770	1800	1280	---	222	197	247	236	247	226	412
30	1610	1780	1800	1270	---	222	624	247	220	247	229	412
31	1460	---	1770	1260	---	222	---	247	---	247	209	---
TOTAL	29318	53470	55300	53480	34760	21424	6934	7001	7029	7455	8037	11734
MEAN	946	1782	1784	1725	1241	691	231	226	234	240	259	391
MAX	1610	2020	1860	1840	1270	1250	624	252	441	254	290	412
MIN	556	1180	1740	1260	1000	201	148	175	173	212	209	318
AC-FT	58150	106100	109700	106100	68950	42490	13750	13890	13940	14790	15940	23270
a	27750	0	0	0	0	21420	54120	60660	51790	62530	62590	40480

CAL YR 1980 TOTAL 552910 MEAN 1511 MAX 2740 MIN 528 AC-FT 1097000
WTR YR 1981 TOTAL 295942 MEAN 811 MAX 2020 MIN 148 AC-FT 587000

a DIVERSIONS IN ACRE-FT, THROUGH GUNNISON TUNNEL, FURNISHED BY UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION.

09128500 SMITH FORK NEAR CRAWFORD, CO

LOCATION.--Lat 38°43'40", long 107°30'22", in SW¼SE¼ sec.24, T.15 S., R.91 W., Delta County, Hydrologic Unit 14020002, on left bank 20 ft (6 m) upstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Second Creek, 6 mi (10 km) northeast of Crawford, and 6.5 mi (10.5 km) upstream from Iron Creek.

DRAINAGE AREA.--43.7 mi^2 (113.2 km^2).

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,091 ft (2,161 m), from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, which are poor. Diversions for irrigation of a few small hay meadows above station. Saddle Mountain ditch diverts water above station for irrigation of about 800 acres (3.24 km^2) below. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--46 years, 40.6 ft^3/s (1.150 m^3/s), 29,410 acre-ft/yr (36.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) May 28, 1979, gage height, 6.90 ft (2.103 m); minimum daily discharge determined, 1.8 ft^3/s (0.051 m^3/s) July 30, 31, Aug. 1, 1963, Sept. 5, 6, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft^3/s (9.63 m^3/s) at 0300 May 3, gage height, 6.16 ft (1.878 m), only peak above base of 260 ft^3/s (7.4 m^3/s); minimum daily, 4.1 ft^3/s (0.12 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	8.0	6.0	5.5	5.0	6.2	14	155	104	17	8.0	7.1
2	5.2	7.5	6.0	5.5	5.5	7.0	14	163	101	19	7.9	7.4
3	5.6	7.5	6.0	5.5	5.5	7.1	17	259	104	17	7.0	8.3
4	5.4	8.0	6.0	5.5	5.5	7.0	17	198	71	15	6.7	8.0
5	5.8	8.0	6.0	4.7	5.5	7.0	20	150	68	13	6.9	9.1
6	6.0	7.5	6.5	5.8	5.5	7.0	20	140	64	12	6.4	10
7	6.0	7.5	6.9	5.5	5.5	7.0	19	109	67	12	6.4	9.3
8	6.5	7.5	6.3	5.5	5.5	7.1	22	90	63	12	6.2	8.3
9	6.5	7.5	6.2	5.0	5.5	7.4	22	78	61	12	6.2	8.0
10	6.5	7.5	6.0	5.0	5.5	7.6	30	59	57	14	6.7	8.8
11	6.5	8.0	6.0	5.0	5.5	6.9	35	51	50	14	7.8	7.6
12	7.0	9.0	6.0	5.0	6.4	7.0	36	47	49	14	8.8	7.6
13	8.0	11	6.0	5.0	6.2	7.0	40	38	46	14	8.0	7.8
14	9.0	10	6.0	5.0	5.5	7.5	57	31	42	14	7.4	8.1
15	10	8.5	6.0	5.0	5.4	7.5	83	27	34	14	6.9	7.1
16	9.5	7.0	5.0	5.0	5.5	8.0	93	30	29	15	7.1	6.0
17	8.5	7.0	4.5	4.7	6.0	9.1	103	30	26	17	8.5	6.0
18	8.5	8.0	6.0	5.0	6.0	9.3	109	27	26	15	7.1	6.2
19	8.5	8.5	6.0	5.0	6.0	9.1	125	29	32	13	6.2	6.2
20	9.0	8.0	6.0	5.0	6.0	8.5	98	31	26	11	6.0	6.4
21	9.0	8.0	6.0	5.0	6.5	8.5	75	37	25	11	5.8	6.4
22	8.5	7.5	5.8	5.0	6.5	9.5	74	34	24	11	6.4	6.7
23	8.0	8.0	6.0	5.0	6.5	10	67	34	24	11	6.2	6.9
24	7.5	8.0	6.0	5.0	6.0	11	75	34	21	11	6.2	6.7
25	7.5	7.5	6.0	5.0	6.0	11	91	39	20	11	6.2	6.7
26	8.0	7.0	5.7	5.0	6.5	12	108	42	20	12	6.2	6.7
27	8.5	7.0	6.0	5.6	6.5	16	111	44	19	10	6.0	6.7
28	8.0	7.0	6.1	4.1	6.5	13	103	63	19	8.4	6.2	6.9
29	7.0	7.0	6.0	5.4	---	12	112	77	18	7.9	6.0	7.1
30	7.5	6.0	5.5	4.8	---	12	131	77	17	7.6	5.6	7.6
31	8.0	---	5.5	4.4	---	15	---	103	---	7.8	6.4	---
TOTAL	230.2	234.5	184.0	157.5	164.0	280.3	1921	2326	1327	392.7	209.4	221.7
MEAN	7.43	7.82	5.94	5.08	5.86	9.04	64.0	75.0	44.2	12.7	6.75	7.39
MAX	10	11	6.9	5.8	6.5	16	131	259	104	19	8.8	10
MIN	4.7	6.0	4.5	4.1	5.0	6.2	14	27	17	7.6	5.6	6.0
AC-FT	457	465	365	312	325	556	3810	4610	2630	779	415	440

CAL YR 1980 TOTAL 19346.9 MEAN 52.9 MAX 562 MIN 2.7 AC-FT 38370
WTR YR 1981 TOTAL 7648.3 MEAN 21.0 MAX 259 MIN 4.1 AC-FT 15170

NOTE.--NO GAGE-HEIGHT RECORD OCT. 6 TO NOV. 19.

09129600 SMITH FORK NEAR LAZEAR, CO

LOCATION.--Lat 38°42'27", long 107°42'35", in SE¼NE¼ sec.31, T.15 S., R.92 W., Delta County, Hydrologic Unit 14020002, on left bank 25 ft (8 m) downstream from bridge, 1.8 mi (2.9 km) upstream from Diamond Joe Gulch, and 6.4 mi (10.3 km) southeast of Lazear.

DRAINAGE AREA.--166 mi² (430 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,830 ft (1,777 m), from topographic map.

REMARKS.--Records good, except those for period of no gage-height record and winter period which are poor. Natural flow of stream affected by reservoirs, diversions into basin, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 20.8 ft³/s (0.589 m³/s), 15,070 acre-ft/yr, (18.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 512 ft³/s (14.5 m³/s) May 23, 1980, gage height, 5.37 ft (1.637 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Aug. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft³/s (3.12 m³/s) at 1300 May 3, gage height, 4.32 ft (1.317 m); minimum daily, 0.40 ft³/s (0.011 m³/s) Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.6	3.0	3.0	2.2	3.6	3.3	2.0	11	3.2	1.5	1.4
2	2.1	3.6	2.8	3.0	2.2	3.6	3.1	2.3	2.3	4.2	1.4	1.1
3	2.5	3.8	3.0	3.0	2.2	3.8	3.4	62	3.4	3.3	1.4	.92
4	2.8	3.8	3.0	3.0	2.2	3.9	3.3	23	3.0	2.9	1.2	1.2
5	2.8	3.6	3.0	3.2	2.4	3.8	3.1	4.3	2.4	2.7	1.8	1.6
6	2.8	3.6	3.2	3.2	2.4	3.8	3.1	2.2	2.3	2.6	2.6	1.7
7	2.8	3.6	3.0	3.0	2.2	3.8	3.1	2.1	2.3	1.9	2.2	1.9
8	3.0	3.6	3.0	3.0	2.2	3.7	3.4	2.1	2.4	1.4	1.6	2.1
9	3.0	3.6	2.8	2.8	2.4	3.5	3.2	2.1	2.2	1.2	1.6	1.9
10	3.0	3.6	3.0	3.0	2.4	3.3	2.4	2.1	2.2	1.2	1.6	2.1
11	3.0	4.0	2.8	2.8	2.2	3.4	1.7	2.2	2.1	1.3	1.6	1.4
12	3.4	4.8	2.8	2.8	2.0	3.5	1.8	2.2	2.1	1.4	1.4	.87
13	3.8	5.0	3.0	2.8	2.4	3.4	1.9	2.2	2.1	1.5	1.3	1.7
14	4.0	4.6	2.8	2.6	2.8	3.1	1.8	2.2	2.1	1.5	.82	1.6
15	4.4	3.8	2.8	2.6	3.1	3.1	2.0	2.2	2.1	1.4	.45	1.6
16	4.2	3.4	3.0	2.6	3.0	3.0	3.0	2.3	2.1	1.4	.40	1.7
17	4.0	3.2	3.2	2.8	3.1	3.1	2.9	2.3	2.1	1.4	.45	1.7
18	4.0	3.6	3.4	2.8	3.2	3.3	2.8	2.3	1.9	1.4	.45	1.7
19	4.0	4.0	3.2	2.8	3.2	3.3	2.8	2.1	1.7	1.4	.56	1.6
20	4.0	3.6	3.2	2.8	3.2	3.3	2.8	2.2	1.9	1.4	.92	1.6
21	4.0	3.8	3.2	2.8	3.0	3.3	2.0	2.2	2.9	1.4	.71	1.7
22	3.8	3.6	3.4	2.8	2.8	3.3	2.2	2.3	3.0	1.4	.82	1.9
23	3.8	3.8	3.4	2.8	3.0	3.4	1.9	2.5	2.6	1.4	.71	1.9
24	3.6	3.8	3.2	2.8	3.2	3.6	1.7	2.5	2.4	1.2	.87	2.1
25	3.6	3.6	3.2	2.6	3.3	3.8	2.3	2.2	2.3	1.2	1.9	1.8
26	3.8	3.4	3.2	2.6	3.5	3.5	2.9	2.1	2.3	1.3	1.8	1.6
27	4.0	3.4	3.0	2.8	3.8	3.5	2.6	2.1	2.5	1.5	1.6	1.6
28	3.4	3.4	3.0	2.8	3.7	3.6	3.0	2.1	2.5	1.6	1.6	1.7
29	3.6	3.4	3.0	2.6	---	3.4	2.3	5.4	2.7	1.6	1.5	1.6
30	3.8	3.2	3.0	2.4	---	3.3	2.3	2.6	3.3	1.6	1.4	1.7
31	3.6	---	2.8	2.2	---	3.3	---	3.6	---	1.5	1.5	---
TOTAL	106.8	111.8	94.4	86.8	77.3	107.3	78.1	156.0	80.2	54.4	39.66	48.99
MEAN	3.45	3.73	3.05	2.80	2.76	3.46	2.60	5.03	2.67	1.75	1.28	1.63
MAX	4.4	5.0	3.4	3.2	3.8	3.9	3.4	62	11	4.2	2.6	2.1
MIN	2.1	3.2	2.8	2.2	2.0	3.0	1.7	2.0	1.7	1.2	.40	.87
AC-FT	212	222	187	172	153	213	155	309	159	108	79	97

CAL YR 1980 TOTAL 13515.50 MEAN 36.9 MAX 452 MIN 1.4 AC-FT 26810
WTR YR 1981 TOTAL 1041.75 MEAN 2.85 MAX 62 MIN .40 AC-FT 2070

NOTE.--NO GAGE-HEIGHT REOCRD OCT. 7 TO JAN. 20.

09131100 COW CREEK NEAR PAONIA, CO

LOCATION.--Lat 39°06'15", long 107°35'00", Delta County, Hydrologic Unit 14020004, on left bank 150 ft (46 m) downstream from road culvert, 1.8 mi (2.9 km) upstream from Beaver Creek, and 16 mi (26 km) north of Paonia.

DRAINAGE AREA.--12.0 mi^2 (31.1 km^2).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,060 ft (2,761 m), from topographic map. Prior to Nov. 9, 1974, at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm^3). Diversions by Overland ditch 3.6 mi (5.8 km) above station for use outside drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 7.50 ft^3/s (0.212 m^3/s), 5,430 acre-ft/yr (6.70 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172 ft^3/s (4.87 m^3/s), June 14, 1975, gage height, 3.01 ft (0.917 m); maximum gage height, 6.95 ft (2.118 m), site and datum then in use, Oct. 4, 1974 (backwater from beaver dam); no flow June 20-24, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft^3/s (1.47 m^3/s) at 2100 Apr. 19, gage height, 2.59 ft (0.789 m); minimum daily discharge, 0.03 ft^3/s (0.001 m^3/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	2.0	2.0	1.3	1.0	1.1	.70	11	1.4	.69	.25	6.2
2	.45	2.0	1.9	1.3	1.0	1.1	.72	9.7	1.1	1.9	.25	5.0
3	.45	1.9	1.8	1.3	1.0	1.0	.72	20	1.1	1.2	.25	3.5
4	.40	1.8	1.8	1.2	1.0	1.0	.72	9.7	1.8	.60	.19	2.9
5	.40	1.8	1.9	1.2	1.0	1.0	.55	6.5	1.3	.45	.13	2.5
6	.44	1.9	2.0	1.2	1.0	1.1	.50	5.7	.83	.45	.10	2.7
7	.43	1.9	2.0	1.2	1.0	1.1	.50	4.5	.49	.44	.08	2.9
8	.70	1.8	2.0	1.2	1.0	1.1	.50	3.9	.54	.35	.08	3.0
9	.90	1.8	2.0	1.2	1.0	1.1	.62	3.3	.35	.93	.08	2.8
10	1.2	1.9	1.8	1.1	1.0	1.1	.96	3.5	.30	1.4	.07	6.1
11	1.2	2.0	1.6	1.2	.90	1.0	1.6	2.9	.30	.91	.14	5.9
12	1.2	2.0	1.5	1.2	.90	1.0	1.7	2.9	.25	.59	.30	5.4
13	1.2	2.0	1.5	1.1	.80	1.0	1.7	2.6	.31	.68	.10	5.3
14	1.2	2.0	1.5	1.1	.90	1.0	1.6	2.6	.40	.61	.09	4.7
15	1.2	2.0	1.6	1.1	.90	1.0	1.9	2.2	.43	.50	.16	3.8
16	1.3	2.0	1.6	1.2	1.0	1.0	2.1	2.2	.45	.55	.18	3.2
17	1.4	2.0	1.6	1.1	1.0	1.0	2.6	2.6	.40	1.4	.08	2.9
18	1.5	2.0	1.6	1.1	1.0	.90	4.0	2.5	.68	1.2	.05	2.4
19	1.8	2.2	1.6	1.1	1.0	.90	15	2.3	.75	.57	.04	2.3
20	2.2	2.4	1.5	1.1	1.0	.90	15	2.0	.40	.40	.03	2.1
21	2.0	2.2	1.5	1.1	1.0	.90	5.2	2.6	.47	.38	.16	2.3
22	2.2	2.0	1.4	1.1	1.0	.90	6.1	3.0	.28	.35	2.9	2.4
23	2.2	2.0	1.4	1.1	1.0	.90	6.5	2.8	.35	.37	2.9	2.3
24	2.2	1.9	1.4	1.1	1.0	.90	8.9	2.4	.36	.68	2.8	3.0
25	2.2	1.9	1.4	1.1	1.0	.80	12	2.1	.33	1.4	2.8	4.6
26	2.2	1.8	1.4	1.1	1.1	.80	15	2.0	.35	1.9	2.7	3.2
27	2.2	1.8	1.4	1.1	1.1	.70	21	2.1	.35	1.4	2.3	2.6
28	2.2	1.8	1.4	1.1	1.1	.70	23	2.0	.60	.66	2.3	2.4
29	2.2	1.9	1.3	1.0	---	.70	20	2.0	.98	.44	2.1	2.0
30	2.2	2.0	1.3	1.0	---	.70	16	1.8	.50	.34	2.5	2.0
31	2.2	---	1.3	1.0	---	.70	---	1.6	---	.26	3.5	---
TOTAL	44.03	58.7	50.0	35.3	27.70	29.10	187.39	127.0	18.15	24.00	29.61	102.4
MEAN	1.42	1.96	1.61	1.14	.99	.94	6.25	4.10	.61	.77	.96	3.41
MAX	2.2	2.4	2.0	1.3	1.1	1.1	23	20	1.8	1.9	3.5	6.2
MIN	.40	1.8	1.3	1.0	.80	.70	.50	1.6	.25	.26	.03	2.0
AC-FT	87	116	99	70	55	58	372	252	36	48	59	203

CAL YR 1980 TOTAL 4176.81 MEAN 11.4 MAX 116 MIN .40 AC-FT 8280
WTR YR 1981 TOTAL 733.38 MEAN 2.01 MAX 23 MIN .03 AC-FT 1450

NOTE.--NO GAGE-HEIGHT RECORD OCT. 13 TO APR. 1.

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO

LOCATION (REVISED).--Lat 38°57'14", long 107°16'23", in SE¼NW¼ sec.6, T.1 S., R.88 W., Gunnison County, Hydrologic Unit 14020004, on left bank 500 ft (152 m) downstream from county bridge 0.3 mi (0.5 km) downstream from Munsey Creek, 4.3 mi (6.9 km) east of Paonia Resevoir Dam and 10 mi (16 km) northeast of Somerset.

DRAINAGE AREA.--94.6 mi² (245.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft (2,057 m), from topographic map. Prior to Dec. 8, 1980, at site 800 ft (244 m) upstream at datum 11.62 ft (3.542 m) higner.

REVISED RECORDS.--WDR-CO-80-2: 1979 (M).

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by small diversions for irrigation of hay meadows.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s (119 m³/s) about May 27, 1979, gage height, 7.20 ft (2.195 m), from floodmark; minimum daily, 12 ft³/s (0.340 m³/s) Dec. 21, 1977, Dec. 30, 1979, Jan. 4, 9, 1980, Feb. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 3	0700	*1100	31.2	3.39	1.033	June 6	2200	885	25.1	3.25	0.991

Minimum daily discharge, 12 ft³/s (0.34 m³/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	24	21	20	14	18	27	650	609	130	33	21
2	18	23	20	20	14	18	33	670	589	165	32	20
3	18	23	19	20	14	20	39	910	675	128	30	21
4	18	24	19	21	15	19	35	670	598	110	29	20
5	18	24	19	21	15	19	29	512	608	94	27	19
6	18	24	19	19	15	21	38	423	700	87	26	21
7	18	24	20	17	15	20	43	325	740	81	25	26
8	18	25	21	19	15	20	45	285	708	77	24	27
9	18	26	19	19	16	20	52	243	697	73	24	25
10	18	26	18	19	15	20	72	215	646	74	25	27
11	18	26	19	19	12	19	91	207	585	66	28	25
12	17	26	19	19	13	18	100	182	501	64	34	27
13	25	32	19	18	14	18	106	165	409	71	31	31
14	23	33	19	17	15	19	133	162	310	60	28	35
15	29	30	19	17	16	19	170	172	239	56	27	31
16	28	27	19	16	16	20	182	176	211	64	28	28
17	27	26	20	16	16	21	199	180	216	73	27	26
18	26	26	20	16	16	20	250	189	217	90	25	25
19	26	26	20	14	16	20	324	220	211	71	23	24
20	27	26	20	14	17	21	307	235	230	77	23	24
21	26	24	20	14	13	20	257	258	236	68	22	24
22	26	26	20	14	14	21	254	237	225	64	22	23
23	26	25	21	15	14	26	261	226	205	60	21	22
24	25	25	19	15	15	28	312	227	191	57	21	22
25	24	24	19	14	15	27	385	247	178	56	22	22
26	23	23	19	14	16	28	482	268	172	63	21	21
27	23	23	19	13	17	32	498	342	165	61	20	21
28	24	22	20	14	17	30	575	564	159	54	19	20
29	23	23	20	15	---	28	620	662	137	50	19	20
30	24	22	20	15	---	28	602	616	123	46	22	20
31	24	---	20	14	---	27	---	699	---	39	22	---
TOTAL	694	758	606	518	420	685	6521	11137	11490	2329	780	718
MEAN	22.4	25.3	19.5	16.7	15.0	22.1	217	359	383	75.1	25.2	23.9
MAX	29	33	21	21	17	32	620	910	740	165	34	35
MIN	17	22	18	13	12	18	27	162	123	39	19	19
AC-FT	1380	1500	1200	1030	833	1360	12930	22090	22790	4620	1550	1420

CAL YR 1980 TOTAL 76518 MEAN 209 MAX 1650 MIN 12 AC-FT 151800
WTR YR 1981 TOTAL 36656 MEAN 100 MAX 910 MIN 12 AC-FT 72710

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

PERIOD OF RECORD.--October 1977 to September 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 07...	0930	20	190	190	7.2	5.5	8.8	11	K1	K1
NOV 18...	1130	22	170	159	7.8	.5	9.4	14	28	K1
JAN 13...	0900	20	160	157	6.8	.0	9.7	--	<1	<1
FEB 10...	0900	20	140	157	6.8	.0	10.0	6	<1	<1
MAR 17...	0845	20	120	136	6.9	.0	9.2	210	<1	<1
APR 14...	0830	130	92	97	6.9	3.5	10.3	49	<1	K2
MAY 05...	1200	510	70	71	6.8	6.0	9.8	50	<1	<1
JUN 02...	1130	550	65	70	6.9	8.0	9.4	16	<2	K2
JUL 14...	1130	55	115	99	7.0	15.5	7.4	9	K8	K8
AUG 04...	1130	30	140	145	6.9	17.0	7.6	0	K10	32
SEP 01...	1200	22	160	148	7.0	15.0	7.4	20	K2	<1

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 07...	68	22	3.2	4.1	.2	.6	66	17	1.1
NOV 18...	140	38	9.9	8.6	.3	1.0	65	20	1.2
JAN 13...	69	22	3.4	4.6	.3	.5	54	18	1.7
FEB 10...	73	23	3.8	5.4	.3	.5	57	18	1.6
MAR 17...	56	18	2.7	4.3	.3	.6	50	14	1.2
APR 14...	43	14	1.9	3.5	.2	.4	40	5.0	.7
MAY 05...	29	9.8	1.1	2.3	.2	.4	38	.7	.5
JUN 02...	32	11	1.0	2.1	.2	.4	28	2.4	.9
JUL 14...	46	15	2.0	2.6	.2	.6	40	13	.3
AUG 04...	57	19	2.4	3.4	.2	.5	48	10	.7
SEP 01...	77	26	3.0	3.7	.2	.6	60	13	1.1

K BASED ON NON-IDEAL COLONY COUNT.

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT									
07...	.1	7.1	93	95	.13	5.0	.00	.010	.01
NOV									
18...	.1	7.7	93	126	.13	5.5	--	--	--
JAN									
13...	.2	6.5	92	90	.13	4.9	--	--	--
FEB									
10...	.1	6.9	92	94	1.4	58.3	--	--	--
MAR									
17...	.2	6.4	78	77	.10	3.7	.09	.010	.26
APR									
14...	.1	7.1	78	57	.11	27.4	.12	.110	.36
MAY									
05...	.0	6.2	57	44	.08	78.5	.09	.110	.24
JUN									
02...	.1	5.4	42	40	.06	62.4	.00	.100	.32
JUL									
14...	.1	6.5	64	65	.09	9.5	.05	.400	.41
AUG									
04...	.1	7.0	81	72	.11	6.5	.01	.080	.42
SEP									
01...	.1	7.3	85	91	.12	5.0	.03	.140	.17

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
OCT									
07...	.02	.02	.020	.020	20	28	2.8	1.0	13
NOV									
18...	--	--	--	.060	70	30	2.0	.4	--
JAN									
13...	--	--	--	.030	0	21	3.6	.2	39
FEB									
10...	--	--	--	.020	0	30	--	.2	39
MAR									
17...	.27	.36	.010	.010	0	20	2.3	.3	39
APR									
14...	.47	.59	.020	.020	5	74	--	.3	--
MAY									
05...	.35	.44	.120	.040	5	60	5.5	.2	220
JUN									
02...	.42	.42	.020	.020	0	40	2.5	1.5	39
JUL									
14...	.81	.86	.020	.020	10	15	1.8	.0	120
AUG									
04...	.50	.51	.010	.010	10	10	3.0	.2	240
SEP									
01...	.31	.34	.020	.010	0	34	2.7	.2	--

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT 07...	0930	20	0	1	--	50	0	<1	0	1	0
JAN 13...	0900	8	1	1	100	40	0	<1	0	4	0
APR 14...	0830	220	2	1	100	30	0	<1	0	<1	10
JUL 14...	1130	60	--	0	--	30	--	<1	--	<1	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 07...	10	0	<3	<10	1	<10	0	4	10	2	.1
JAN 13...	0	0	4	<10	6	--	0	8	10	3	.0
APR 14...	10	0	<3	<10	0	<10	0	<4	10	4	.1
JUL 14...	0	--	<3	<10	--	<10	--	10	--	7	--

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 07...	.0	2	<10	0	0	0	0	240	<3.0	3
JAN 13...	.0	3	<10	0	2	0	0	230	<6.0	17
APR 14...	.0	110	<10	0	1	0	0	160	<6.0	30
JUL 14...	.1	--	<10	--	2	--	0	160	<6.0	170

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 07...	0930	20	0	.00
NOV 18...	1130	22	11	.65
FEB 10...	0900	20	0	.00
APR 14...	0830	130	7	2.5
MAY 05...	1200	510	30	41
JUN 02...	1130	550	29	43
JUL 14...	1130	55	3	.45
AUG 04...	1130	30	36	2.9
SEP 01...	1200	22	7	.42

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	OCT 7,80	NOV 18,80	JAN 13,81	FEB 10,81	MAR 17,81
TIME	0930	1130	0900	0900	0845
TOTAL CELLS/ML	13	100	39	39	39
DIVERSITY: DIVISION	0.0	1.0	0.0	0.0	0.0
.CLASS	0.0	1.0	0.0	0.0	0.0
..ORDER	0.0	1.0	0.0	0.0	0.0
...FAMILY	0.0	2.0	0.9	0.9	0.0
....GENUS	0.0	2.0	0.9	0.9	0.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	13	13	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	13#	100	13	13	26#	67	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	13	13	13#	33	13#	33	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	13	13	--	-	26#	67	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	52#	50	--	-	--	-	39#	100
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

	APR 14,81	MAY 5,81	JUN 2,81	JUL 14,81	AUG 4,81
DATE	APR 14,81	MAY 5,81	JUN 2,81	JUL 14,81	AUG 4,81
TIME	0830	1200	1130	1130	1130
TOTAL CELLS/ML	39	220	39	120	240
DIVERSITY: DIVISION	0.9	0.7	0.0	0.9	1.2
.CLASS	0.9	0.7	0.0	0.9	1.2
..ORDER	0.9	0.7	0.0	0.9	1.6
...FAMILY	0.9	0.8	1.6	1.9	2.3
....GENUS	0.9	0.8	1.6	1.9	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	26#	67	--	-	--	-	--	-	14	6
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....MELOSIRA	--	-	--	-	--	-	--	-	28	12
....STEPHANODISCUS	13#	33	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	13	6	--	-	26#	22	28	12
....COCCONEIS	--	-	--	-	--	-	--	-	28	12
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	39#	33	56#	24
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	13	11	--	-
....SYNEDRA	--	-	--	-	13#	33	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	14	6
...NAVICULACEAE										
....NAVICULA	--	-	26	12	13#	33	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	13#	33	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	39#	33	70#	29
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	180#	82	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO

LOCATION.--Lat 38°55'45", long 107°26'53", in SW¼SE¼ sec.9, T.13 S., R.90 W., Gunnison County, Hydrologic Unit 14020004, on right bank 1.5 mi (2.4 km) east of Somerset and 4.0 mi (6.4 km) (corrected) upstream from Hubbard Creek.

DRAINAGE AREA.--531 mi² (1,375 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Datum of gage is 6,038.91 ft (1,840.660 m) National Geodetic Vertical Datum of 1929. Prior to July 22, 1971, at site 100 ft (30 m) downstream at datum 0.31 ft (0.094 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres (12.1 km²) above station, storage in Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm³), and storage in Paonia Reservoir, capacity, 18,300 acre-ft (22.6 hm³) since February 1961. See table below for contents of Paonia Reservoir.

COOPERATION.--Monthend contents, in acre-feet, in Paonia Reservoir; furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--48 years, 433 ft³/s (12.26 m³/s), 313,700 acre-ft/yr (387 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,860 ft³/s (223 m³/s) June 4, 1957, gage height, 5.83 ft (1.777 m), present datum; minimum daily, 17 ft³/s (0.48 m³/s) Nov. 10, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) at 1400 May 3, gage height, 3.97 ft (1.210 m); minimum daily, 46 ft³/s (1.30 m³/s) Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	81	55	60	50	57	63	1230	1050	243	235	228
2	78	81	55	65	50	59	72	1240	1030	361	231	219
3	75	81	62	65	50	61	86	1830	1180	296	226	219
4	73	83	60	65	50	57	76	1540	1070	247	222	216
5	73	80	62	70	50	51	67	1160	1070	215	217	212
6	73	81	65	70	55	52	78	1030	1140	238	220	218
7	72	83	62	65	55	48	93	862	1220	246	222	227
8	72	83	61	65	50	49	98	754	1190	254	221	228
9	71	81	58	60	55	48	103	673	1220	260	219	217
10	70	82	57	65	60	48	139	589	1060	269	220	173
11	70	82	60	65	55	48	178	573	998	241	229	84
12	70	84	60	65	50	49	193	513	884	258	243	88
13	89	102	60	65	46	50	199	452	762	258	245	94
14	82	104	60	60	60	50	241	426	627	236	233	117
15	105	89	60	60	75	51	342	439	494	221	230	101
16	101	75	60	60	70	53	366	460	425	236	229	90
17	96	70	65	65	70	55	417	497	412	269	219	84
18	93	70	70	65	65	52	509	496	408	254	213	81
19	90	75	70	65	65	52	683	533	382	225	212	78
20	92	70	70	65	59	57	634	545	405	222	211	78
21	88	70	70	65	59	59	522	633	408	229	208	77
22	87	70	65	65	57	55	524	587	389	221	211	76
23	87	70	70	60	55	62	530	567	348	219	208	73
24	80	70	70	65	59	65	607	571	320	232	206	75
25	80	72	65	60	59	64	690	592	299	228	207	73
26	85	62	65	60	59	67	757	643	280	244	205	71
27	90	65	65	60	58	78	757	725	280	236	208	70
28	82	65	65	60	57	69	763	1000	287	217	212	65
29	75	65	65	60	---	65	1070	1140	281	220	211	59
30	83	60	65	55	---	66	1200	1060	251	220	222	60
31	84	---	60	50	---	62	---	1180	---	221	224	---
TOTAL	2545	2306	1957	1945	1603	1759	12057	24540	20170	7536	6819	3751
MEAN	82.1	76.9	63.1	62.7	57.3	56.7	402	792	672	243	220	125
MAX	105	104	70	70	75	78	1200	1830	1220	361	245	228
MIN	70	60	55	50	46	48	63	426	251	215	205	59
AC-FT	5050	4570	3880	3860	3180	3490	23920	48680	40010	14950	13530	7440
a	6400	6400	6400	4380	4900	6560	18400	18400	20800	13500	5050	2190

CAL YR 1980 TOTAL 247297 MEAN 676 MAX 4330 MIN 50 AC-FT 490500
WTR YR 1981 TOTAL 86988 MEAN 238 MAX 1830 MIN 46 AC-FT 172500

a MONTHEND CONTENTS, IN ACRE-FEET, IN PAONIA RESERVOIR, FURNISHED BY WATER AND POWER RESOURCES SERVICE

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

PERIOD OF RECORD.--October 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 07...	1245	73	180	187	7.7	11.5	8.8	74	23	4.0	8.3
NOV 18...	1530	69	220	228	7.7	1.0	10.0	84	26	4.7	8.5
JAN 13...	1400	67	190	205	7.3	.0	10.1	86	27	4.5	9.7
FEB 10...	1200	67	180	207	7.4	.0	10.2	84	26	4.6	10
MAR 17...	1200	55	160	187	7.3	2.5	8.8	69	21	3.9	10
APR 14...	1215	214	140	134	7.1	7.0	9.8	54	17	2.8	5.9
MAY 05...	1545	1200	120	112	7.2	9.0	8.8	48	15	2.5	4.2
JUN 02...	1415	1040	90	91	7.5	14.5	8.1	42	14	1.8	3.5
JUL 14...	1445	235	150	154	8.0	18.5	8.6	61	19	3.2	6.4
AUG 04...	1430	224	185	183	8.2	17.0	8.8	79	25	4.0	7.8
SEP 01...	1445	231	210	214	7.8	20.5	6.8	89	28	4.6	9.4

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 07...	.4	.9	81	9.6	1.8	.1	9.3	106	.14	21.0
NOV 18...	.4	1.1	95	12	2.2	.1	8.5	120	.16	22.4
JAN 13...	.5	.8	100	13	2.2	.2	9.5	127	.17	23.0
FEB 10...	.5	.8	89	12	2.2	.1	9.1	118	.16	21.5
MAR 17...	.5	.7	68	16	3.6	.1	7.8	104	.14	15.7
APR 14...	.4	.7	55	15	1.0	.1	8.2	84	.11	48.5
MAY 05...	.3	.8	50	6.2	1.4	.1	8.2	69	.09	224
JUN 02...	.2	.6	41	1.1	.7	.1	7.2	54	.07	152
JUL 14...	.4	.8	67	.6	3.3	.1	3.9	78	.11	49.5
AUG 04...	.4	.9	86	1.0	1.3	.1	7.9	100	.14	60.5
SEP 01...	.5	1.4	100	<5.0	1.2	.1	11	121	.16	75.5

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT 07...	.00	.010	.20	.21	.21	.040	50	180	9.3	11
NOV 18...	.17	.080	.50	.58	.75	.060	40	70	10	10
JAN 13...	.04	.070	.30	.37	.41	.020	0	120	--	3.3
FEB 10...	.05	.060	--	--	--	.020	0	20	25	24
MAR 17...	.00	.040	.32	.36	.36	.020	10	20	--	7.2
APR 14...	.20	.080	.35	.43	.63	.050	5	50	--	3.2
MAY 05...	.14	.110	.48	.59	.73	.050	190	210	4.1	3.7
JUN 02...	.01	.080	.69	.77	.78	.030	0	40	4.3	4.5
JUL 14...	.04	.180	.32	.50	.54	.060	0	20	1.9	2.0
AUG 04...	.00	.210	.33	.54	.54	.010	10	24	3.2	1.3
SEP 01...	.01	.120	.52	.64	.65	.030	10	21	3.2	2.8

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
OCT									
07...	1245	290	200	0	2	0	<1	1	<1
JAN									
13...	1400	40	--	1	--	0	--	0	--
APR									
14...	1215	920	--	1	--	0	--	0	--
JUL									
14...	1445	220	--	2	--	0	--	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT									
07...	10	20	4	2	3	0	40	40	.1
JAN									
13...	0	--	4	--	4	--	30	--	.0
APR									
14...	10	--	6	--	0	--	40	--	.1
JUL									
14...	10	--	5	--	4	--	10	1	.0

DATE	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT								
07...	.0	2	0	0	0	1.0	10	<3
JAN								
13...	--	0	--	0	--	--	30	--
APR								
14...	--	3	--	0	--	--	20	--
JUL								
14...	--	3	--	0	--	--	10	10

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
07...	1245	73	5	.99
FEB				
10...	1200	67	3	.55
APR				
14...	1215	214	211	122
MAY				
05...	1545	1200	49	159
JUN				
02...	1415	1040	51	143
JUL				
14...	1445	235	16	10
AUG				
04...	1430	224	29	18
SEP				
01...	1445	231	24	15

09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW¼NE¼ sec.36, T.14 S., R.93 W., Delta County, Hydrologic Unit 14020004, on left bank at upstream side of culvert, 0.3 mi (0.5 km) west of Hotchkiss city limits, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--66.7 mi² (172.8 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,315 ft (1,620 m), from topographic map.

REMARKS.--Records good. Natural flow of stream is affected by diversions above station for irrigation and by return flow from irrigated area above station. Mostly return flow after June. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 24.9 ft³/s (0.705 m³/s), 18,040 acre-ft/yr, (22.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s (22.3 m³/s) June 11, 1980, gage height, 8.29 ft (2.527 m); minimum daily, 0.55 ft³/s (0.016 m³/s) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft³/s (8.61 m³/s) at 0600 May 3, gage height, 5.76 ft (1.756 m); minimum daily, 1.5 ft³/s (0.042 m³/s) June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	14	13	9.2	7.2	7.9	5.1	34	3.0	3.7	3.6	6.1
2	7.9	12	13	9.2	7.2	7.5	4.6	24	3.0	3.8	3.6	6.0
3	7.9	12	13	8.9	7.2	7.5	4.0	184	2.9	3.7	3.6	5.9
4	7.9	12	13	8.9	7.5	7.5	2.8	35	3.0	3.4	3.6	6.2
5	7.9	13	14	8.9	7.2	7.9	2.8	7.0	3.2	3.2	3.6	6.4
6	8.0	13	14	8.6	7.5	7.9	2.8	2.9	2.8	2.8	3.5	6.4
7	8.1	13	14	8.6	7.2	7.9	2.8	2.6	3.0	2.5	3.4	6.4
8	7.9	13	14	8.2	7.2	7.9	2.8	2.0	2.4	2.4	3.6	6.4
9	6.9	13	12	7.5	7.5	7.9	2.8	2.0	1.7	2.3	3.6	6.7
10	7.2	14	11	8.2	7.5	7.6	2.8	2.0	1.7	2.2	3.6	7.5
11	7.0	14	11	8.9	6.4	7.2	3.3	2.0	1.9	2.2	3.9	7.9
12	6.9	14	11	7.9	6.1	7.2	3.2	2.0	2.0	3.0	4.2	7.9
13	8.3	14	11	7.9	6.5	7.2	3.0	1.9	2.3	3.0	4.7	7.5
14	7.9	14	11	7.9	7.2	7.5	3.0	2.0	2.4	3.0	5.1	6.7
15	9.1	14	11	8.6	7.2	7.5	19	2.0	2.4	2.8	6.3	6.4
16	9.9	15	11	8.2	7.5	7.3	29	2.1	3.1	2.6	7.3	6.1
17	9.9	14	11	8.2	7.5	6.7	36	2.2	3.4	2.6	7.4	6.1
18	11	15	11	8.2	7.5	6.7	53	2.2	3.4	2.6	6.7	6.1
19	15	18	11	8.2	7.5	6.7	83	2.2	3.2	2.6	6.6	6.1
20	14	15	10	8.2	7.5	6.7	73	2.2	3.0	2.6	6.4	5.9
21	15	14	10	8.2	7.5	6.7	16	2.2	2.8	2.6	5.2	4.8
22	15	14	9.9	7.9	7.5	6.4	28	2.2	2.0	2.6	4.5	3.4
23	15	14	9.9	7.9	7.5	6.4	3.6	2.2	1.5	2.6	4.5	4.0
24	15	13	9.9	7.9	7.5	6.4	28	2.2	1.7	2.5	4.5	5.1
25	15	13	9.9	7.9	7.9	6.1	38	2.2	1.8	2.5	4.8	5.1
26	15	13	9.6	7.9	7.9	5.3	21	2.2	2.6	2.6	4.8	5.3
27	15	13	9.6	7.9	7.9	5.3	12	2.3	2.9	2.6	4.8	5.6
28	15	13	9.6	7.5	7.9	5.3	6.6	2.4	3.0	3.2	4.8	5.6
29	15	14	9.6	7.5	---	5.1	21	3.8	2.8	3.6	4.8	5.9
30	15	14	9.2	7.5	---	5.1	39	3.3	3.4	3.6	5.7	5.9
31	15	---	9.2	7.2	---	5.1	---	3.0	---	3.6	6.1	---
TOTAL	341.6	411	346.4	253.7	205.7	211.4	552.0	344.3	78.3	89.0	148.8	181.4
MEAN	11.0	13.7	11.2	8.18	7.35	6.82	18.4	11.1	2.61	2.87	4.80	6.05
MAX	15	18	14	9.2	7.9	7.9	83	184	3.4	3.8	7.4	7.9
MIN	6.9	12	9.2	7.2	6.1	5.1	2.8	1.9	1.5	2.2	3.4	3.4
AC-FT	678	815	687	503	408	419	1090	683	155	177	295	360

CAL YR 1980 TOTAL 18290.2 MEAN 50.0 MAX 546 MIN 1.3 AC-FT 36280
WTR YR 1981 TOTAL 3163.6 MEAN 8.67 MAX 184 MIN 1.5 AC-FT 6270

09136200 GUNNISON RIVER NEAR LAZEAR, CO

LOCATION.--Lat 38°46'59", long 107°50'14", in NE¼NE¼ sec.1, T.15 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 300 ft (91 m) downstream from North Fork Gunnison River and 3.0 mi (4.8 km) west of Lazear.

DRAINAGE AREA.--5,241 mi² (13,574 km²).

PERIOD OF RECORD.--May 1962 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,090 ft (1,551 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 150,000 acres (607 km²), part of which is in the Uncompahgre River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) May 13, 1962, gage height, 6.30 ft (1.920 m), from recorded range in stage; minimum daily, 115 ft³/s (3.26 m³/s) Oct. 6, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,970 ft³/s (84.1 m³/s) at 1500 May 3, gage height, 3.58 ft (1.091 m); minimum daily, 330 ft³/s (9.35 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1850	1930	2000	1480	1430	480	1760	1390	350	339	434
2	1060	1710	1900	1990	1460	1430	496	1640	1280	386	340	538
3	1000	1280	1940	2010	1390	1440	578	2460	1440	397	341	535
4	967	1770	1930	1990	1400	1420	514	2050	1480	376	334	485
5	956	1940	1930	1990	1430	1310	490	1470	1450	361	334	489
6	1010	2050	1960	1950	1450	1070	496	1300	1340	352	333	507
7	1130	2220	1980	1980	1440	1060	502	1110	1390	340	330	521
8	1640	2220	1950	1940	1440	1050	557	967	1380	335	336	499
9	1220	2220	1930	1990	1480	1060	544	911	1280	340	340	501
10	1220	2210	1930	1990	1220	1040	606	830	1210	350	351	545
11	1230	2110	1890	1990	1410	1040	620	783	1080	356	363	569
12	1260	2120	1920	1990	1460	1000	684	753	999	352	388	566
13	1160	2150	1960	1960	1450	948	660	692	829	363	397	560
14	820	2190	1940	1960	1450	904	745	633	715	364	395	571
15	880	2120	1930	1990	1450	860	880	610	596	355	411	567
16	1020	2010	1920	2030	1450	810	978	648	524	364	429	544
17	1080	2020	1950	2020	1430	814	967	689	494	398	429	536
18	1160	2000	1970	2040	1430	809	1120	692	464	389	410	531
19	1180	2010	2000	2000	1430	751	1310	691	474	371	406	527
20	1130	1990	1970	1970	1440	727	1680	702	477	351	405	526
21	1040	1960	1990	1980	1420	736	967	820	483	343	398	527
22	1040	1940	1960	1990	1400	736	901	801	478	347	411	512
23	849	1950	2020	2000	1430	676	830	755	448	348	419	514
24	832	1980	2000	2030	1440	606	912	734	421	343	414	518
25	1160	1900	2040	2050	1420	544	1000	737	399	351	420	510
26	1140	1870	2060	2050	1430	490	1080	779	383	354	420	512
27	1210	1920	1980	2060	1420	455	1080	866	379	361	395	513
28	1210	1890	1990	1950	1420	496	1010	1120	375	350	392	514
29	1460	1930	2010	1490	---	485	1360	1350	386	342	409	511
30	1900	1960	2000	1470	---	490	1800	1310	370	343	429	500
31	1680	---	1960	1480	---	485	---	1420	---	337	437	---
TOTAL	35724	59490	60840	60330	39970	27172	25847	32083	24414	11069	11955	15682
MEAN	1152	1983	1963	1946	1428	877	862	1035	814	357	386	523
MAX	1900	2220	2060	2060	1480	1440	1800	2460	1480	398	437	571
MIN	820	1280	1890	1470	1220	455	480	610	370	335	330	434
AC-FT	70860	118000	120700	119700	79280	53900	51270	63640	48430	21960	23710	31110

CAL YR 1980 TOTAL 846956 MEAN 2314 MAX 9560 MIN 749 AC-FT 1680000
WTR YR 1981 TOTAL 404576 MEAN 1108 MAX 2460 MIN 330 AC-FT 802500

09137050 CURRANT CREEK NEAR READ, CO

LOCATION.--Lat 38°47'05", long 107°56'18", in SW¼SE¼ sec.31, T.14 S., R.94 W., Delta County, Hydrologic Unit 14020005, on right bank 0.2 mi (0.3 km) downstream from Dry Creek, 0.4 mi (0.6 km) upstream from mouth, 0.7 mi (1.1 km) northeast of Austin, and 2.4 mi (3.9 km) northeast of Read.

DRAINAGE AREA.--56.9 mi^2 (147.4 km^2).

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,035 ft (1,535 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 7.75 ft^3/s (0.219 m^3/s), 5,610 acre-ft/yr (6.92 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 420 ft^3/s (11.9 m^3/s) May 22, 1980, gage height, 5.12 ft (1.561 m), no flow Aug. 2, 4, 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft^3/s (0.312 m^3/s) at 1900 Oct. 21, gage height, 2.76 ft (0.841 m); minimum daily, 0.02 ft^3/s (0.001 m^3/s) July 2-6, 15-17, 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	8.2	6.2	5.4	5.0	6.7	2.8	.55	.54	.11	.16	.05
2	4.2	8.4	6.1	5.8	4.7	6.0	2.8	.42	.22	.02	.11	.04
3	3.3	8.2	6.3	5.6	4.9	6.9	2.0	.76	.05	.02	.12	.07
4	3.6	7.9	6.3	5.7	5.0	6.3	1.5	.78	.05	.02	.04	.08
5	4.6	7.6	6.7	5.9	5.0	6.1	1.5	.58	.05	.02	.04	.09
6	5.0	7.5	7.6	5.9	5.2	6.1	1.2	.52	.05	.02	.04	.12
7	5.0	7.3	7.4	5.3	4.7	6.1	1.1	.43	.04	.07	.06	.32
8	4.9	7.6	7.0	5.0	4.6	5.8	1.2	.43	.05	.18	.25	.27
9	5.4	7.6	6.5	5.2	5.0	6.3	.92	.49	.05	.16	.27	.26
10	3.8	7.5	5.9	5.9	5.0	6.2	.75	.51	.05	.15	.26	.45
11	4.3	7.4	5.4	5.7	4.5	5.4	.74	.51	.04	.22	.09	.85
12	5.5	7.5	5.8	5.6	5.2	5.4	.73	.48	.04	.27	.15	1.1
13	7.8	8.0	5.8	5.4	5.5	5.3	.84	.47	.04	.09	.07	.51
14	5.8	7.8	5.5	5.0	5.5	5.3	.76	.40	.04	.06	.06	.32
15	7.6	6.6	5.7	5.2	5.8	5.2	.69	.34	.04	.02	.06	.22
16	9.0	6.0	5.8	5.2	5.7	3.3	.77	.28	.05	.02	.32	.23
17	10	5.5	6.0	5.3	5.9	2.8	.28	.21	.33	.02	1.3	.21
18	9.5	5.3	6.0	5.1	6.0	2.4	.20	.18	.48	.04	.33	.33
19	9.1	5.2	6.2	5.0	6.0	2.0	1.2	.14	.28	.07	.22	.52
20	9.6	5.3	6.2	5.1	6.1	2.2	.93	.16	.18	.05	.13	.55
21	9.9	5.3	6.1	5.0	5.7	2.5	.19	.21	.24	.02	.18	.54
22	10	5.3	6.5	5.2	5.2	2.4	.38	.18	.38	.02	.21	.62
23	9.8	5.5	6.7	5.4	5.6	2.3	.61	.15	.36	.03	.23	.71
24	9.3	7.1	6.1	5.4	5.8	2.2	.58	.06	.36	.04	.10	.79
25	8.5	6.8	6.1	5.4	5.8	2.0	.78	.04	.22	.24	.10	.72
26	8.8	6.3	6.1	5.0	6.8	2.0	1.4	.04	.11	.31	.04	.76
27	9.2	5.7	6.1	5.1	6.6	1.9	1.5	.47	.07	.24	.05	.64
28	8.3	5.9	6.1	5.6	6.7	2.0	.78	.88	.14	.15	.06	.73
29	8.1	6.2	6.0	5.7	---	2.7	1.0	.68	.25	.16	.04	.83
30	7.9	6.4	5.7	5.2	---	3.1	.95	.46	.15	.16	.04	.90
31	7.6	---	5.5	5.2	---	3.2	---	.56	---	.18	.10	---
TOTAL	219.6	202.9	191.4	166.5	153.5	128.1	31.08	12.37	4.95	3.18	5.23	13.83
MEAN	7.08	6.76	6.17	5.37	5.48	4.13	1.04	.40	.17	.10	.17	.46
MAX	10	8.4	7.6	5.9	6.8	6.9	2.8	.88	.54	.31	1.3	1.1
MIN	3.3	5.2	5.4	5.0	4.5	1.9	.19	.04	.04	.02	.04	.04
AC-FT	436	402	380	330	304	254	62	25	9.8	6.3	10	27

CAL YR 1980 TOTAL 6253.41 MEAN 17.1 MAX 257 MIN .02 AC-FT 12400
WTR YR 1981 TOTAL 1132.64 MEAN 3.10 MAX 10 MIN .02 AC-FT 2250

09143000 SURFACE CREEK NEAR CEDAREDGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft (2 m) downstream from private bridge, 1.4 mi (2.3 km) downstream from Caesar Creek, and 7.0 mi (11.3 km) northeast of Cedaredge.

DRAINAGE AREA.--26.7 mi^2 (69.2 km^2).

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,261 ft (2,518 m), from topographic map.

REMARKS.--Records good. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--42 years, 40.9 ft^3/s (1.158 m^3/s), 29,630 acre-ft/yr (36.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft^3/s (17.8 m^3/s) June 8, 1980, gage height, 3.32 ft (1.012 m), from rating curve extended above 310 ft^3/s (8.8 m^3/s); maximum gage height, 5.10 ft (1.554 m) Apr. 13, 1958 (ice jam); minimum daily discharge, 0.80 ft^3/s (0.023 m^3/s) Jan. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 168 ft^3/s (4.76 m^3/s) at 0300 May 3, gage height, 2.25 ft (0.686 m); minimum daily, 3.5 ft^3/s (0.099 m^3/s) Mar. 28-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	6.5	4.5	4.5	4.5	4.1	3.7	77	82	50	46	31
2	24	6.5	4.5	4.5	4.5	3.9	3.7	82	82	51	43	25
3	22	6.5	4.5	4.5	4.5	3.9	3.7	135	88	48	42	21
4	18	6.2	4.5	4.5	4.3	3.9	3.7	96	84	32	36	21
5	18	6.5	4.3	4.3	4.3	3.9	3.7	96	82	29	36	26
6	17	6.8	4.5	4.3	4.3	3.9	3.9	94	88	29	38	27
7	23	7.0	4.8	4.1	4.1	3.9	3.9	78	84	42	38	26
8	24	7.0	4.8	4.1	4.1	3.9	3.7	71	82	44	40	33
9	24	6.8	4.8	4.1	4.1	3.9	4.3	65	82	37	37	35
10	28	6.8	4.8	4.1	4.1	3.9	7.6	60	76	35	38	31
11	26	6.5	4.8	4.1	4.1	3.9	10	59	77	69	35	23
12	22	6.8	4.8	4.1	4.1	4.1	10	60	73	83	34	18
13	28	7.0	4.8	3.9	4.1	4.1	11	54	80	86	26	17
14	26	6.8	4.8	3.9	4.1	4.1	15	59	74	54	26	17
15	30	6.5	4.8	3.9	4.1	3.9	21	59	73	47	20	18
16	26	6.0	4.8	4.3	4.1	3.9	23	62	54	38	15	18
17	20	5.5	4.5	4.3	3.9	3.9	35	60	49	47	14	20
18	13	5.5	4.5	4.3	3.9	3.9	48	60	46	36	10	21
19	12	5.0	4.3	4.3	3.9	3.9	65	59	42	30	10	17
20	14	5.0	4.3	4.3	3.9	3.9	41	60	37	27	13	16
21	11	4.8	4.3	4.3	4.1	3.9	35	68	34	39	13	17
22	10	4.8	4.3	4.1	4.1	3.9	45	68	29	39	13	18
23	8.2	4.8	4.3	4.1	4.1	3.9	59	73	36	38	13	20
24	8.5	4.8	4.3	4.1	4.1	3.9	70	73	36	39	14	26
25	13	4.8	4.3	4.1	4.1	3.7	77	73	34	41	35	28
26	12	4.5	4.3	4.1	4.1	3.7	80	62	36	42	40	28
27	13	4.5	4.3	4.1	4.1	3.7	77	76	33	39	43	28
28	18	4.5	4.5	4.1	4.1	3.5	80	89	33	33	44	28
29	20	4.5	4.5	4.1	---	3.5	86	86	32	37	48	42
30	16	4.5	4.8	4.1	---	3.5	84	83	42	51	49	38
31	13	---	4.8	4.3	---	3.5	---	83	---	53	52	---
TOTAL	589.7	173.7	141.1	129.9	115.8	119.5	1013.9	2280	1780	1365	961	734
MEAN	19.0	5.79	4.55	4.19	4.14	3.85	33.8	73.5	59.3	44.0	31.0	24.5
MAX	32	7.0	4.8	4.5	4.5	4.1	86	135	88	86	52	42
MIN	8.2	4.5	4.3	3.9	3.9	3.5	3.7	54	29	27	10	16
AC-FT	1170	345	280	258	230	237	2010	4520	3530	2710	1910	1460

CAL YR 1980 TOTAL 20419.9 MEAN 55.8 MAX 346 MIN 2.6 AC-FT 40500
WTR YR 1981 TOTAL 9403.6 MEAN 25.8 MAX 135 MIN 3.5 AC-FT 18650

09143900 SURFACE CREEK AT CEDAREDGE, CO

LOCATION.--Lat 38°56'06", long 107°55'14", in SW¼SE¼ sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedaredge, 700 ft (210 m) east of State Highway 65, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 mi^2 (102.3 km^2).

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,220 ft (1,896 m), from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft (0.152 m) higher.

REMARKS.--Records good except those for winter periods which are fair. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--65 years, 26.9 ft^3/s (0.762 m^3/s), 19,490 acre-ft/yr (24.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft^3/s (33.7 m^3/s) May 13, 1941, gage height, 2.50 ft (0.762 m), from rating curve extended above 640 ft^3/s (18 m^3/s); no flow Sept. 25, 1939, and practically no flow at times in some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 182 ft^3/s (5.15 m^3/s) at 0430 May 3, gage height, 2.09 ft (0.637 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	5.2	4.4	4.6	3.6	3.9	3.9	62	72	21	16	15
2	17	5.5	4.2	4.6	3.2	3.7	4.4	72	59	23	17	15
3	16	5.2	4.4	4.7	3.7	3.7	5.0	127	69	23	15	12
4	14	5.8	4.4	5.0	3.7	3.7	4.2	68	68	13	18	12
5	13	5.5	4.7	5.0	3.4	3.4	3.4	70	62	11	18	16
6	13	4.2	5.2	4.2	3.4	3.7	4.7	74	61	10	16	17
7	13	2.0	5.2	4.2	3.0	3.6	6.1	59	55	14	16	16
8	14	1.9	5.0	4.2	3.6	3.6	5.2	56	52	14	15	19
9	16	1.7	5.0	4.2	3.6	3.4	5.5	52	49	13	14	20
10	15	1.6	4.6	4.2	3.6	3.7	9.8	51	44	15	15	20
11	18	1.9	4.7	4.1	3.6	3.7	15	50	43	29	16	14
12	16	4.1	5.2	3.7	3.6	3.7	16	53	38	30	16	14
13	20	7.6	5.2	3.4	3.6	3.7	15	46	36	33	14	14
14	19	6.9	4.7	3.6	3.6	3.9	21	43	30	27	14	13
15	22	2.6	5.2	4.2	3.6	3.9	29	43	26	26	13	12
16	18	3.4	5.5	4.2	3.4	3.9	30	46	23	20	9.8	11
17	18	5.5	5.0	4.1	3.4	4.2	40	46	20	26	8.5	14
18	9.4	5.5	5.0	3.7	3.2	4.1	49	43	23	24	8.1	15
19	8.1	5.2	5.0	4.0	3.2	3.7	64	48	21	15	8.5	11
20	9.8	5.2	5.0	4.0	3.4	4.1	46	51	19	13	11	10
21	8.1	4.8	5.0	4.0	2.9	4.2	43	51	16	13	11	11
22	7.6	4.4	5.0	3.8	3.4	3.9	52	49	15	15	11	12
23	6.9	4.2	5.0	3.8	3.6	4.1	61	53	18	14	11	12
24	5.2	5.0	4.2	3.7	3.7	4.1	68	53	16	14	11	12
25	8.5	4.4	4.4	3.6	3.4	3.9	68	52	15	18	12	9.8
26	11	4.4	4.4	3.6	3.6	4.2	64	56	17	21	12	15
27	11	4.4	4.4	3.2	3.4	5.0	62	68	12	20	13	15
28	12	4.4	4.4	3.6	3.4	4.2	72	76	13	15	13	15
29	13	4.7	4.4	3.4	---	3.9	78	69	12	15	8.9	12
30	11	4.4	4.2	3.9	---	4.2	76	68	18	14	9.4	9.8
31	10	---	4.6	3.2	---	3.7	---	69	---	13	11	---
TOTAL	412.6	131.6	147.6	123.7	96.8	120.7	1021.2	1824	1022	572	402.2	413.6
MEAN	13.3	4.39	4.76	3.99	3.46	3.89	34.0	58.8	34.1	18.5	13.0	13.8
MAX	22	7.6	5.5	5.0	3.7	5.0	78	127	72	33	18	20
MIN	5.2	1.6	4.2	3.2	2.9	3.4	3.4	43	12	10	8.1	9.8
AC-FT	818	261	293	245	192	239	2030	3620	2030	1130	798	820

CAL YR 1980 TOTAL 15489.6 MEAN 42.3 MAX 371 MIN 1.6 AC-FT 30720
WTR YR 1981 TOTAL 6288.0 MEAN 17.2 MAX 127 MIN 1.6 AC-FT 12470

09144200 TONGUE CREEK AT CORY, CO

LOCATION.--Lat 38°47'16", long 107°59'41", in SE¼SE¼ sec.34, T.14 S., R.95 W., Delta County, Hydrologic Unit 14020005, on left bank at downstream side of bridge, 500 ft (150 m) upstream from North Delta canal headgate, 0.5 mi (0.8 km) west of Cory, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--196 mi² (508 km²).

PERIOD OF RECORD.--October 1957 to September 1968, May 1976 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,030 ft (1,533 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Natural flow of stream affected by many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Diversions to and from nearby streams. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1958-68, 1977-81), 27.5 ft³/s (0.779 m³/s), 19,920 acre-ft/yr (24.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 855 ft³/s (24.2 m³/s) May 23, 1980, gage height, 5.86 ft (1.786 m); minimum daily, 0.35 ft³/s (0.010 m³/s) July 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft³/s (2.63 m³/s) at 1000 May 3, gage height, 3.81 ft (1.61 m); minimum daily, 0.46 ft³/s (0.013 m³/s) June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	46	39	34	37	27	22	5.2	12	1.2	5.4	7.0
2	31	47	39	35	34	26	22	7.2	9.2	2.5	3.8	7.0
3	33	47	38	34	34	26	24	41	13	2.9	6.8	6.5
4	32	47	38	34	36	25	24	12	16	2.4	7.4	6.5
5	31	47	39	34	37	25	23	6.8	13	3.2	6.4	8.0
6	30	46	40	33	35	25	23	8.0	13	3.3	6.1	9.0
7	28	46	40	32	34	25	22	5.5	11	2.5	6.0	8.5
8	30	45	39	33	33	26	21	4.8	11	2.7	6.0	10
9	29	44	37	32	35	26	18	3.8	7.7	2.0	5.0	12
10	30	42	34	32	34	27	18	3.8	7.3	2.2	5.5	11
11	30	42	35	32	32	26	22	3.1	8.3	1.6	6.0	13
12	29	42	36	32	36	25	21	1.8	8.7	1.3	6.0	16
13	35	45	36	32	35	25	19	3.0	10	1.6	5.5	15
14	35	45	35	33	34	23	19	3.5	9.8	1.9	5.5	14
15	53	43	35	34	35	23	26	3.7	12	1.3	5.0	14
16	51	40	35	36	33	22	30	2.9	12	1.3	4.6	11
17	49	40	34	38	32	23	30	3.8	11	1.9	4.4	12
18	45	40	34	37	31	23	21	4.4	11	3.8	4.0	11
19	44	40	34	36	30	24	24	2.6	7.9	1.9	4.4	12
20	44	40	34	36	29	25	26	2.6	3.7	1.9	4.8	13
21	43	39	34	35	29	26	17	3.3	2.8	1.5	4.8	12
22	43	39	34	38	28	25	17	2.5	2.4	2.0	4.8	13
23	42	40	34	39	29	24	12	2.6	1.9	2.4	4.8	12
24	43	44	36	39	28	24	15	4.1	.72	2.9	4.8	14
25	45	41	36	38	27	24	8.9	3.7	.46	2.8	5.0	14
26	46	39	36	36	28	25	10	3.1	.77	3.2	5.0	13
27	49	39	36	38	26	24	9.7	4.5	.99	3.3	5.5	10
28	45	39	36	40	26	24	8.3	7.9	2.1	3.4	5.5	13
29	45	39	35	38	---	24	11	6.0	2.5	3.0	4.6	14
30	46	40	34	38	---	24	12	5.9	1.1	6.0	5.0	13
31	47	---	34	38	---	23	---	8.2	---	4.9	6.0	---
TOTAL	1212	1273	1114	1096	897	764	575.9	181.3	223.34	78.8	164.4	344.5
MEAN	39.1	42.4	35.9	35.4	32.0	24.6	19.2	5.85	7.44	2.54	5.30	11.5
MAX	53	47	40	40	37	27	30	41	16	6.0	7.4	16
MIN	28	39	34	32	26	22	8.3	1.8	.46	1.2	3.8	6.5
AC-FT	2400	2520	2210	2170	1780	1520	1140	360	443	156	326	683

CAL YR 1980 TOTAL 29409.00 MEAN 80.4 MAX 680 MIN 12 AC-FT 58330
WTR YR 1981 TOTAL 7924.24 MEAN 21.7 MAX 53 MIN .46 AC-FT 15720

NOTE.--NO GAGE-HEIGHT RECORD AUG. 7 TO SEPT. 8.

09144250 GUNNISON RIVER AT DELTA, CO

LOCATION.--Lat 38°45'01", long 108°04'06", in SE¼NE¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank near upstream side of U.S. Highway 50 bridge at north edge of Delta.

DRAINAGE AREA.--5,628 mi² (14,577 km²).

PERIOD OF RECORD.--May 1976 to current year. Gage-height records collected at this site 1912-77 (flood seasons only) are in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 4,919.97 ft (1,499.607 m) National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 1,654 ft³/s (46.84 m³/s), 1,198,000 acre-ft/yr, (1,480 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,100 ft³/s (343 m³/s) May 24, 1980; minimum daily, 208 ft³/s (5.89 m³/s) Aug. 11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height observed, 13.5 ft (4.11 m) June 6, 1957, from National Weather Service wire-weight gage at same datum (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,260 ft³/s (92.3 m³/s) at 1700 May 3, gage-height, 6.83 ft (2.082 m); minimum daily, 274 ft³/s (7.76 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	2000	2240	2220	1680	1710	592	1900	1730	342	333	519
2	1300	1980	2210	2230	1650	1710	566	1670	1560	394	342	628
3	1300	1520	2250	2230	1590	1720	641	2520	1670	466	321	659
4	1200	1970	2250	2220	1600	1730	603	2550	1840	445	310	606
5	1200	2160	2260	2220	1630	1650	573	1800	1720	412	291	572
6	1300	2250	2300	2180	1650	1380	546	1580	1600	378	287	605
7	1500	2430	2310	2190	1650	1340	506	1350	1630	341	274	669
8	2100	2430	2280	2160	1640	1330	571	1140	1610	311	282	646
9	1600	2440	2240	2190	1700	1350	549	1080	1510	305	291	618
10	1600	2440	2220	2190	1590	1340	548	949	1440	321	319	659
11	1600	2350	2180	2190	1420	1340	593	857	1320	416	390	678
12	1600	2360	2190	2200	1650	1320	644	826	1190	412	454	748
13	1300	2390	2230	2160	1650	1260	659	759	990	452	476	718
14	1000	2420	2210	2160	1660	1180	687	666	806	430	477	694
15	1100	2370	2220	2170	1680	1160	834	621	666	435	513	700
16	1300	2230	2190	2210	1670	1070	1010	672	579	430	560	666
17	1400	2230	2230	2200	1660	1060	1030	732	484	499	542	656
18	1500	2220	2250	2210	1650	1090	1170	771	461	509	484	646
19	1500	2270	2280	2180	1650	1050	1400	728	463	454	443	620
20	1400	2320	2240	2160	1680	957	1890	723	449	423	424	608
21	1300	2300	2250	2150	1670	966	1150	868	479	397	408	600
22	1300	2290	2220	2170	1650	962	988	919	475	413	403	604
23	1100	2290	2260	2170	1670	910	877	820	451	349	425	603
24	1070	2340	2250	2200	1690	778	945	799	407	367	410	626
25	1360	2240	2260	2200	1670	748	1090	811	365	390	411	625
26	1440	2210	2300	2190	1700	674	1170	873	338	394	402	585
27	1460	2220	2240	2210	1710	645	1180	974	339	450	379	570
28	1490	2230	2220	2230	1690	661	1080	1280	385	390	380	589
29	1540	2230	2250	1710	---	645	1290	1610	389	359	424	592
30	2130	2270	2240	1670	---	622	1760	1650	375	347	483	580
31	2020	---	2190	1670	---	624	---	1680	---	342	565	---
TOTAL	44410	67400	69460	66440	46200	34982	27142	36178	27721	12373	12503	18889
MEAN	1433	2247	2241	2143	1650	1128	905	1167	924	399	403	630
MAX	2130	2440	2310	2230	1710	1730	1890	2550	1840	509	565	748
MIN	1000	1520	2180	1670	1420	622	506	621	338	305	274	519
AC-FT	88090	133700	137800	131800	91640	69390	53840	71760	54980	24540	24800	37470

CAL YR 1980 TOTAL 1027032 MEAN 2806 MAX 11900 MIN 875 AC-FT 2037000
WTR YR 1981 TOTAL 463698 MEAN 1270 MAX 2550 MIN 274 AC-FT 919700

09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO

LOCATION.--Lat 38°11'02", long 107°44'43", in SW¼NE¼ sec.4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) upstream from bridge, 0.2 mi (0.3 km) downstream from Dry Creek, 0.5 mi (0.8 km) upstream from Dallas Creek, and 2.3 mi (3.7 km) north of Ridgway.

DRAINAGE AREA.--149 mi² (386 km²).

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft (2,096.286 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Diversions for irrigation above station. Water is imported above station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 155 ft³/s (4.390 m³/s), 112,300 acre-ft/yr (138 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) Sept. 6, 1970, gage height, 5.38 ft (1.640 m); minimum daily, 26 ft³/s (0.74 m³/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) at 2230 July 14, gage height, 4.40 ft (1.341 m), only peak above base of 1,000 ft³/s (28 m); minimum daily, 28 ft³/s (0.79 m³/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	60	51	43	33	39	39	174	340	264	165	118
2	58	60	50	44	32	39	39	156	354	309	158	86
3	60	58	51	44	32	40	40	231	458	270	150	81
4	60	58	51	46	32	39	39	181	374	234	139	80
5	56	56	51	46	33	37	39	154	450	215	124	80
6	55	56	55	44	32	40	42	152	560	193	108	84
7	55	55	54	41	32	39	44	130	660	169	98	98
8	55	55	51	40	32	37	43	120	665	172	99	84
9	51	54	50	39	33	38	42	103	640	181	99	81
10	55	54	46	40	33	38	50	86	625	228	108	83
11	58	52	44	39	30	40	56	80	575	273	172	81
12	56	52	46	41	28	40	63	71	530	329	136	81
13	60	55	47	40	29	40	60	65	474	343	114	94
14	61	59	47	39	33	42	63	58	402	342	107	107
15	74	56	47	38	35	44	67	64	326	442	92	92
16	68	58	47	39	36	46	65	65	285	555	94	89
17	67	55	47	39	38	46	74	71	282	434	91	83
18	71	51	47	38	39	43	98	74	288	382	86	81
19	71	50	47	38	40	46	101	78	285	297	83	81
20	71	50	46	37	43	47	96	86	303	252	75	80
21	70	50	44	36	41	43	84	99	294	195	71	77
22	70	50	44	36	38	43	89	96	291	174	78	71
23	64	51	46	36	41	42	99	96	273	208	72	75
24	63	52	42	36	43	43	118	110	258	255	71	80
25	61	52	43	35	42	40	134	126	246	228	68	72
26	60	51	44	31	41	41	130	145	252	282	67	64
27	64	50	44	32	37	43	120	165	267	282	67	58
28	63	50	44	34	38	41	114	264	264	255	67	58
29	63	51	44	34	---	40	136	329	288	210	65	56
30	64	52	43	32	---	42	158	362	252	195	75	55
31	63	---	43	33	---	40	---	386	---	178	89	---
TOTAL	1925	1613	1456	1190	996	1278	2342	4377	11561	8346	3088	2410
MEAN	62.1	53.8	47.0	38.4	35.6	41.2	78.1	141	385	269	99.6	80.3
MAX	74	60	55	46	43	47	158	386	665	555	172	118
MIN	51	50	42	31	28	37	39	58	246	169	65	55
AC-FT	3820	3200	2890	2360	1980	2530	4650	8680	22930	16550	6130	4780

CAL YR 1980 TOTAL 50030 MEAN 137 MAX 1010 MIN 35 AC-FT 99230
WTR YR 1981 TOTAL 40582 MEAN 111 MAX 665 MIN 28 AC-FT 80490

09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec. 4 and 5, T. 45 N., R. 8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft (7.62 m) downstream from county bridge, 1.5 mi (2.4 km) upstream from mouth, and 15 mi (2.4 km) northwest of Ridgway.

DRAINAGE AREA.--96.2 mi² (249.2 km²).

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to current year.

REVISED RECORDS.--WSP 1924: 1960: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,980 ft (2,128 m), from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Records good except those for periods of no gage-height record and those for winter period, which are poor. Diversions above station for irrigation of about 4,500 acres (18.2 km²) above and 700 acres (2.83 km²) below station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 36.2 ft³/s (1.025 m³/s), 26,230 acre-ft/yr (32.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s (31.7 m³/s) Aug. 15, 1923, gage height, 4.40 ft (1.341 m) datum then in use, from rating curve extended above 160 ft³/s (4.53 m³/s); maximum gage height, 5.14 ft (1.567 m) Jan. 31, 1963 (backwater from ice); minimum daily discharge, 0.21 ft³/s (0.006 m³/s) June 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 428 ft³/s (12.1 m³/s) July 17, gage height, 4.93 ft (1.503 m); minimum daily, 0.21 ft³/s (0.006 m³/s) June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	13	15	14	13	19	15	1.0	6.3	26	26	23
2	7.6	14	15	14	13	18	14	.80	3.1	29	26	22
3	8.1	15	14	14	13	18	13	.70	1.4	19	23	22
4	3.9	16	14	14	13	18	12	.60	1.1	12	20	21
5	3.9	17	15	14	13	18	14	.50	.50	7.2	18	21
6	4.0	17	15	14	13	18	14	.40	3.2	5.6	16	30
7	4.0	17	15	14	14	19	15	.35	19	3.1	15	47
8	4.0	17	15	13	14	19	17	.96	23	2.3	14	30
9	3.9	18	15	13	14	20	18	1.4	24	5.5	12	28
10	4.3	18	14	13	13	19	26	1.1	34	33	13	36
11	4.2	16	13	13	14	19	26	.40	43	41	38	43
12	6.2	13	13	13	16	19	27	.36	25	50	43	56
13	9.6	15	14	13	19	19	35	.36	20	60	35	54
14	11	16	14	13	20	19	38	.36	11	78	31	55
15	15	16	14	13	18	20	60	.40	6.4	112	38	55
16	14	15	14	13	20	20	66	.40	1.8	150	39	49
17	13	16	14	13	19	20	48	.40	.44	168	34	45
18	9.6	15	14	13	19	19	32	.44	.74	98	29	42
19	7.6	15	14	13	19	20	34	.50	.21	59	27	40
20	7.6	14	14	13	17	20	25	.50	.89	43	27	35
21	8.0	14	13	13	18	20	8.2	.50	2.1	30	29	31
22	8.5	14	13	13	19	18	8.0	.50	6.3	27	34	29
23	9.0	14	13	13	19	18	4.7	.50	13	33	32	30
24	9.5	14	14	13	19	18	4.7	.50	14	45	30	30
25	10	15	13	12	19	16	3.6	.50	13	35	28	28
26	10	15	13	12	17	17	2.8	.52	23	53	27	30
27	11	15	13	12	18	17	2.2	.84	32	57	27	30
28	11	14	13	13	18	16	1.7	.56	24	43	27	29
29	12	14	13	13	---	16	1.4	1.3	35	37	25	27
30	12	14	13	12	---	16	1.2	1.1	31	31	23	28
31	13	---	13	12	---	16	---	2.0	---	25	26	---
TOTAL	265.4	456	429	405	461	569	587.5	20.75	418.48	1417.7	832	1046
MEAN	8.56	15.2	13.8	13.1	16.5	18.4	19.6	.67	13.9	45.7	26.8	34.9
MAX	15	18	15	14	20	20	66	2.0	43	168	43	56
MIN	3.9	13	13	12	13	16	1.2	.35	.21	2.3	12	21
AC-FT	526	904	851	803	914	1130	1170	41	830	2810	1650	2070

CAL YR 1980 TOTAL 10856.70 MEAN 29.7 MAX 170 MIN 3.9 AC-FT 21530
WTR YR 1981 TOTAL 6907.83 MEAN 18.9 MAX 168 MIN .21 AC-FT 13700

09147500 UNCOMPAHGRE RIVER AT COLONA, CO

LOCATION.--Lat 38°19'53", long 107°46'44", in NW¼NW¼ sec.17, T.47 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) downstream from county highway bridge, 0.2 mi (0.3 km) north of Colona, and 1.0 mi (1.6 km) upstream from Beaton Creek.

DRAINAGE AREA.--443 mi² (1,147 km²).

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-6, 1922-34.

REVISED RECORDS.--WSP 1313: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,318.80 ft (1,925.970 m), National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream affected by water diverted from West Fork Cimarron Creek, Mineral Creek (San Juan River basin), and Leopard Creek (Dolores River basin), diversions for irrigation of about 19,000 acres or 76.9 km² (part of which is below station), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--71 years (water years 1904-5, 1913-81), 261 ft³/s (7.392 m³/s), 189,100 acre-ft/yr (233 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,080 ft³/s (116 m³/s) June 13, 14, 1921; minimum daily, 12 ft³/s (0.34 m³/s) Sept. 19, 1956, May 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s (39.1 m³/s) at 0200 June 8, gage height, 3.98 ft (1.213 m), from peak stage indicator; minimum daily, 27 ft³/s (0.76 m³/s) May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	108	77	61	50	65	77	270	435	249	210	119
2	54	107	73	64	49	63	80	197	439	356	201	86
3	54	101	77	61	52	66	86	315	504	282	176	80
4	54	96	78	63	52	65	79	241	480	236	151	76
5	54	93	78	65	50	61	70	155	602	219	131	75
6	55	98	86	61	52	70	89	115	802	199	111	89
7	54	95	83	55	54	64	104	85	920	179	92	122
8	53	92	80	66	56	66	105	91	1010	169	88	117
9	54	91	75	64	55	63	84	77	1030	170	83	92
10	55	90	65	65	54	64	116	57	1000	223	83	102
11	56	87	69	63	52	67	145	43	908	257	149	111
12	56	82	75	64	48	65	148	36	785	385	159	126
13	57	91	73	62	52	69	122	31	657	440	142	131
14	59	100	70	60	55	69	124	29	552	445	125	162
15	73	90	68	60	58	70	138	28	441	552	108	139
16	75	89	69	59	60	70	160	27	372	721	125	125
17	72	81	70	62	61	70	169	31	351	659	116	116
18	70	70	71	59	61	62	226	34	345	548	97	109
19	74	73	72	57	61	66	230	36	326	411	92	105
20	76	76	68	56	67	71	229	36	345	345	92	95
21	79	76	67	55	63	69	135	54	340	270	90	90
22	85	75	70	56	53	66	144	61	332	227	95	82
23	76	80	73	57	59	69	137	53	307	252	91	78
24	68	88	63	56	67	71	180	63	263	322	89	89
25	74	83	69	53	66	67	213	72	241	277	87	78
26	96	79	69	51	66	71	232	99	230	342	80	72
27	116	80	68	53	57	79	211	116	265	379	76	71
28	106	82	69	57	60	74	171	275	243	317	73	70
29	100	80	67	54	---	71	207	400	276	250	73	68
30	116	80	60	52	---	80	248	426	267	231	78	67
31	113	---	61	49	---	70	---	465	---	217	109	---
TOTAL	2237	2613	2213	1820	1590	2113	4459	4018	15148	10129	3472	2942
MEAN	72.2	87.1	71.4	58.7	56.8	68.2	149	130	505	327	112	98.1
MAX	116	108	86	66	67	80	248	465	1030	721	210	162
MIN	53	70	60	49	48	61	70	27	230	169	73	67
AC-FT	4440	5180	4390	3610	3150	4190	8840	7970	30050	20090	6890	5840

CAL YR 1980 TOTAL 71108 MEAN 194 MAX 1160 MIN 47 AC-FT 141000
WTR YR 1981 TOTAL 52754 MEAN 145 MAX 1030 MIN 27 AC-FT 104600

NOTE.--NO GAGE-HEIGHT RECORD JUNE 7-10.

09149400 SPRING CREEK NEAR BEAVER HILL, CO

LOCATION.--Lat 38°23'32", long 107°56'40", in NW¼NW¼ sec.26, T.48 N., R.10 W., Montrose County, Hydrologic Unit 14020006, on left bank 7.2 mi (11.6 km) southwest of Montrose.

DRAINAGE AREA.--41.6 mi^2 (107.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,570 ft (1.698 m), from topographic map. Prior to Nov. 23, 1977, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 275 ft^3/s (7.79 m^3/s) May 23, 1980, gage height, 3.30 ft (1.006 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 91 ft^3/s (2.58 m^3/s) at 1730 June 28, gage height, 2.44 ft (0.744 m), no peak above base of 100 ft^3/s (2.8 m^3/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.71	.59	.59	.72	.70	38	9.6	1.3	.03	.00
2	.00	.08	.59	.59	.65	.70	.92	38	7.3	2.8	.00	.00
3	.00	.12	.72	.53	.59	.73	1.6	48	7.0	1.9	.00	.00
4	.00	.13	.67	.51	.53	.69	1.2	41	7.9	1.2	.00	.00
5	.00	.16	.69	.59	.53	.66	.68	37	6.7	.93	.00	.00
6	.00	.18	.91	.54	.48	.82	.85	31	6.4	.63	.00	.01
7	.00	.19	.84	.53	.48	.70	1.3	27	5.8	.47	.00	.00
8	.00	.22	.86	.48	.48	.72	2.0	23	5.4	.37	.00	.00
9	.00	.27	.96	.54	.48	.66	1.8	19	4.9	1.0	.00	.20
10	.00	.31	.79	.44	.48	.70	2.5	17	4.3	2.0	.00	.20
11	.00	.33	.68	.40	.34	.78	3.3	15	3.9	1.5	.00	.13
12	.00	.36	.66	.44	.53	.70	3.7	13	3.7	1.0	.00	.11
13	.00	1.0	.67	.40	.72	.68	3.6	12	3.1	1.5	.00	.16
14	.00	3.0	.67	.37	.72	.72	3.8	11	3.0	2.0	.00	.12
15	.00	1.3	.64	.40	.65	.70	5.0	10	2.8	1.5	.00	.08
16	.00	.72	.68	.40	.79	.71	6.6	11	2.9	.87	.00	.09
17	.00	.48	.72	.44	.72	.87	8.0	11	2.6	2.7	.00	.09
18	.00	.34	.79	.40	.72	.58	8.1	9.2	2.3	1.4	.00	.05
19	.00	.33	.77	.40	.77	.69	11	8.6	1.8	.70	.00	.02
20	.00	.29	.72	.40	.85	.87	15	8.0	1.5	1.1	.00	.00
21	.00	.23	.65	.37	.65	.78	13	10	1.3	.64	.00	.00
22	.00	.23	.54	.40	.66	.59	16	8.0	1.1	.35	.00	.00
23	.00	.27	.64	.40	.74	.78	17	7.0	.87	.19	.00	.00
24	.00	.30	.65	.44	.72	.95	21	7.4	.72	.30	.00	.04
25	.00	.33	.62	.48	.77	.78	25	7.0	.53	.26	.00	.12
26	.00	.40	.60	.44	.79	.98	30	6.3	.43	.30	.00	.07
27	.00	.48	.62	.40	.64	1.4	34	5.3	1.7	.48	.00	.04
28	.00	.59	.62	.40	.59	.91	34	6.9	8.1	.44	.00	.01
29	.00	.65	.62	.44	---	.68	36	7.5	5.2	.24	.00	.00
30	.00	.72	.68	.53	---	.86	38	6.0	2.1	.07	.00	.00
31	.00	---	.59	.53	---	.63	---	9.6	---	.04	.00	---
TOTAL	.00	14.02	21.57	14.22	17.66	23.74	345.65	508.8	114.95	30.18	.03	1.54
MEAN	.000	.47	.70	.46	.63	.77	11.5	16.4	3.83	.97	.001	.051
MAX	.00	3.0	.96	.59	.85	1.4	38	48	9.6	2.8	.03	.20
MIN	.00	.01	.54	.37	.34	.58	.68	5.3	.43	.04	.00	.00
AC-FT	.00	28	43	28	35	47	686	1010	228	60	.06	3.1

CAL YR 1980 TOTAL 6060.82 MEAN 16.6 MAX 235 MIN .00 AC-FT 12020
WTR YR 1981 TOTAL 1092.36 MEAN 2.99 MAX 48 MIN .00 AC-FT 2170

09149400 SPRING CREEK NEAR BEAVER HILL, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JAN 12...	1100	.44	930	1010	7.3	.5	.25	9.9	--	<1
FEB 09...	1100	.45	880	945	7.3	.0	--	10.6	12	<1
MAR 16...	1130	.60	630	--	7.7	6.0	--	9.2	11	<1
APR 13...	1030	3.8	370	379	7.6	9.0	2.6	9.6	51	K7
MAY 04...	1700	42	97	94	6.8	11.5	--	9.0	16	K10
JUN 01...	1100	9.8	155	205	7.5	12.0	--	8.8	26	90

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 12...	K10	340	104	20	82	2.0	3.5	210	310	7.6
FEB 09...	K18	320	100	18	86	2.1	4.2	200	290	7.4
MAR 16...	K14	240	73	15	66	1.8	3.8	160	170	30
APR 13...	55	140	41	9.1	20	.8	2.4	110	61	3.0
MAY 04...	K4	44	13	2.8	3.5	.2	1.0	42	2.9	1.2
JUN 01...	160	81	24	5.1	8.1	.4	1.6	64	33	1.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
JAN 12...	.4	6.1	687	662	.93	.82	--	--	--
FEB 09...	.3	6.4	--	633	.13	.11	--	--	--
MAR 16...	.3	5.5	678	460	.92	1.1	.00	.020	.41
APR 13...	.2	5.6	239	209	.33	2.4	.01	.100	.49
MAY 04...	.0	5.2	84	55	.11	9.6	.10	.120	.44
JUN 01...	.1	5.9	131	118	.18	3.4	.00	.090	.91

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
JAN 12...	--	--	--	.030	100	29	14	.1	190
FEB 09...	--	--	--	.010	130	30	--	.2	52
MAR 16...	.43	.43	.010	.010	100	10	4.4	--	100
APR 13...	.59	.60	.030	.010	40	39	4.7	.4	--
MAY 04...	.56	.66	.140	.040	10	60	11	.3	500
JUN 01...	1.00	1.0	.040	.030	20	90	6.5	1.0	77

[illegible] ON NON-IDEAL COLONY COUNT.

09149400 SPRING CREEK NEAR BEAVER HILL, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
JAN 12...	1100	8	2	2	100	110	0	<1	0	4	10
APR 13...	1030	40	3	2	100	120	0	<1	0	<1	10

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
JAN 12...	0	0	5	0	8	0	200	210	30	24
APR 13...	10	0	<3	<10	0	<10	50	55	30	13

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
JAN 12...	.0	.0	4	<10	0	3	0	0	1500	7.0
APR 13...	.1	.0	2	<10	1	1	0	0	530	<6.0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)
JAN 12...	20	53	6.1	.3	<8.9	<.4	<4.6	<.4	<4.5	<.4
APR 13...	30	26	3.2	.4	<4.7	.6	2.8	.9	2.7	.9

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
FEB 09...	1100	.45	1	.00
APR 13...	1030	3.8	10	.10
MAY 04...	1700	42	51	5.9
JUN 01...	1100	9.8	42	1.1

09149400 SPRING CREEK NEAR BEAVER HILL, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO JUNE 1981

DATE	JAN 12,81		FEB 9,81		MAR 16,81		APR 13,81		MAY 4,81		JUN 1,81	
TIME	1100		1100		1130		1030		1700		1100	
TOTAL CELLS/ML	190		52		100		77		500		77	
DIVERSITY: DIVISION	0.9		0.0		0.0		0.0		0.3		0.0	
.CLASS	0.9		0.0		0.0		0.0		0.3		0.0	
..ORDER	0.9		0.0		0.0		0.7		0.5		0.0	
...FAMILY	0.9		1.5		1.5		2.3		2.2		1.3	
....GENUS	0.9		1.5		1.5		2.3		2.2		1.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	13	7	--	-	--	-	--	-	26	5	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	--	-	13	3	--	-
....STEPHANODISCUS	--	-	--	-	--	-	13#	17	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	13#	25	52#	50	--	-	26	5	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	13#	17	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	150#	80	--	-	--	-	13#	17	26	5	13#	17
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	13#	25	26#	25	--	-	52	10	13#	17
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	13#	17	230#	46	52#	67
...NITZSCHIACEAE												
....NITZSCHIA	--	-	26#	50	26#	25	26#	33	130#	26	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	26	13	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09149420 SPRING CREEK NEAR MONTROSE, CO

LOCATION.--Lat 38°31'26", long 107°58'15", in NE¼SE¼ sec.10, T.49 N., R.10 W., Montrose County, Hydrologic Unit 14020006, on left bank 0.8 mi (1.3 km) upstream from mouth and 3.2 mi (5.1 km) northwest of Montrose.

DRAINAGE AREA.--76.6 mi² (198.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,570 ft (1,698 m), from topographic map. July 1, 1977, to Nov. 9, 1977, nonrecording gage at site 150 ft (45.7 m) downstream at datum 1.29 ft (0.393 m) lower, and Nov. 10, 1977, to Apr. 15, 1980, water-stage recorder at same site and datum.

REMARKS.--Records good. Natural flow of stream affected by diversions and return flow from irrigated areas. Most flow is return flow.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft³/s (8.35 m³/s) May 17, 1978, gage height, 3.78 ft (1.152 m); minimum daily, 7.3 ft³/s (0.207 m³/s) Mar. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 145 ft³/s (4.11 m³/s) at 2130 July 17, gage height, 3.23 ft (0.984 m); minimum daily, 10 ft³/s (0.28 m³/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	36	19	12	11	10	40	68	68	80	91	96
2	68	36	19	12	10	10	41	76	65	84	90	89
3	70	35	18	12	10	10	52	82	67	87	88	87
4	73	34	19	12	11	10	62	80	66	84	85	84
5	75	33	18	12	10	10	61	78	67	86	83	85
6	73	31	21	12	10	10	58	74	69	84	85	85
7	74	30	20	12	10	10	57	73	71	80	82	83
8	67	31	20	12	10	11	72	72	73	76	71	85
9	63	30	19	11	11	11	68	70	73	76	71	84
10	70	29	18	11	10	11	71	67	76	77	73	82
11	71	25	18	11	10	11	66	70	77	78	82	79
12	73	25	15	11	10	11	61	70	78	79	84	78
13	82	25	16	11	11	11	63	70	76	84	88	75
14	78	27	16	11	11	12	62	70	81	82	86	72
15	80	25	15	11	11	11	60	72	87	81	97	70
16	76	24	15	11	11	12	64	73	87	81	83	63
17	75	26	15	11	10	12	68	74	85	98	85	55
18	72	26	15	11	10	12	65	71	78	91	79	54
19	68	22	14	11	10	15	67	74	74	85	76	58
20	66	22	13	11	10	18	66	78	71	89	77	68
21	64	21	13	11	11	21	68	77	70	90	81	62
22	59	21	13	11	11	20	69	72	68	89	88	61
23	58	22	14	11	11	21	69	70	71	92	89	62
24	58	22	13	11	11	30	66	71	69	90	89	66
25	50	22	13	11	11	30	63	70	70	83	86	64
26	42	21	13	11	11	25	66	70	71	87	84	64
27	47	19	13	11	11	31	67	66	73	87	85	63
28	43	19	13	11	10	38	68	70	75	95	80	66
29	39	20	13	11	---	40	71	71	82	98	85	67
30	38	19	13	11	---	40	73	68	79	94	91	65
31	37	---	12	11	---	39	---	68	---	92	106	---
TOTAL	1978	778	486	349	294	563	1904	2235	2217	2659	2620	2172
MEAN	63.8	25.9	15.7	11.3	10.5	18.2	63.5	72.1	73.9	85.8	84.5	72.4
MAX	82	36	21	12	11	40	73	82	87	98	106	96
MIN	37	19	12	11	10	10	40	66	65	76	71	54
AC-FT	3920	1540	964	692	583	1120	3780	4430	4400	5270	5200	4310

CAL YR 1980 TOTAL 20244.6 MEAN 55.3 MAX 240 MIN 8.9 AC-FT 40160
WTR YR 1981 TOTAL 18255.0 MEAN 50.0 MAX 106 MIN 10 AC-FT 36210

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

PERIOD OF RECORD.--December 1977 to September 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 07...	1545	75	890	890	8.1	16.0	.80	8.2	62	130
NOV 17...	1115	26	1320	1287	8.0	5.5	--	11.0	94	K36
JAN 12...	1400	10	13[illegible]0	1190	7.8	7.5	.30	10.4	--	K20
FEB 09...	1345	10	1350	1390	8.0	7.0	--	10.6	8	K5
MAR 16...	1330	12	1180	1200	8.1	10.5	--	9.4	19	K3
APR 13...	1330	60	750	710	7.8	13.5	45	9.2	74	400
MAY 06...	0745	7.5	790	747	7.5	8.0	--	8.6	22	K220
JUN 01...	1315	78	920	887	8.1	16.5	--	9.8	23	460
JUL 13...	1130	97	950	916	7.7	15.5	--	6.9	28	K1000
AUG 03...	1215	92	980	955	7.7	18.0	--	7.6	12	K500
31...	1245	98	1000	955	7.7	17.0	--	8.4	6	600

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 07...	K116	440	120	34	27	.6	3.1	190	300	4.4
NOV 17...	K64	590	150	53	45	.8	3.2	180	480	8.2
JAN 12...	65	720	187	60	48	.8	2.0	220	560	9.8
FEB 09...	55	730	190	63	50	.8	2.2	200	540	11
MAR 16...	50	610	160	51	43	.8	2.5	240	430	14
APR 13...	280	340	95	25	20	.5	2.9	150	220	4.2
MAY 06...	600	360	100	27	21	.5	2.4	190	230	4.1
JUN 01...	1000	440	120	34	25	.5	2.8	180	280	4.8
JUL 13...	K4100	470	130	34	27	.6	2.9	200	300	5.0
AUG 03...	2100	480	133	37	27	.6	2.6	210	300	5.0
31...	--	480	133	37	29	.6	4.2	200	310	6.4

K BASED ON NON-IDEAL COLONY COUNT.

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIUS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT									
07...	.6	19	635	624	.86	129	1.1	.040	.31
NOV									
17...	.7	18	926	867	1.2	65.0	--	--	--
JAN									
12...	.9	19	1060	3310	1.4	31.2	--	--	--
FEB									
09...	.7	19	644	996	.88	18.3	--	--	--
MAR									
16...	.7	16	879	862	1.2	28.5	1.9	.020	.48
APR									
13...	.5	14	494	473	.67	80.0	.80	.110	.77
MAY									
06...	.4	14	515	513	.70	10.4	.03	.010	--
JUN									
01...	.5	15	636	590	.86	135	1.5	.080	1.0
JUL									
13...	.5	18	654	639	.89	171	1.4	.350	.75
AUG									
03...	.6	19	677	651	.92	169	1.3	.100	1.0
31...	.6	19	695	660	.95	185	1.3	.170	1.1

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
OCT									
07...	.35	1.5	.090	.060	90	190	13	.9	360
NOV									
17...	--	--	--	.030	150	30	--	.5	--
JAN									
12...	--	--	--	.030	150	21	--	.3	64
FEB									
09...	--	--	--	.020	130	60	--	.2	230
MAR									
16...	.50	2.4	.040	.010	120	20	7.2	1.0	220
APR									
13...	.88	1.7	.190	.070	60	45	6.3	1.7	--
MAY									
06...	--	--	--	.090	70	70	7.2	.5	320
JUN									
01...	1.10	2.6	.110	.100	80	10	11	--	990
JUL									
13...	1.10	2.5	.230	.050	90	34	3.3	.2	940
AUG									
03...	1.10	2.4	.100	.030	90	25	5.5	.8	130
31...	1.30	2.6	.090	.040	100	38	4.7	.3	--

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 07...	150	1	2	100	60	0	<1	0	<1	10	0
JAN 12...	0	2	1	100	50	0	<1	0	2	10	0
APR 13...	40	4	1	200	40	0	<1	0	<1	10	10
JUL 13...	30	--	2	--	60	--	<1	--	2	--	0

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
OCT 07...	0	<3	<10	0	<10	50	62	40	31	.1	.0
JAN 12...	0	<3	<10	10	6	--	98	50	37	.1	.0
APR 13...	0	<3	<10	4	<10	40	44	90	39	.1	.0
JUL 13...	--	<3	<10	--	<10	--	67	--	26	--	.1

DATE	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 07...	3	<10	2	0	1	1	1100	<3.0	10	22
JAN 12...	4	<10	1	0	3	3	1800	<6.0	20	25
APR 13...	110	<10	4	2	2	1	850	<6.0	30	18
JUL 13...	--	<10	--	2	--	1	1200	<6.0	--	41

DATE	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)
OCT 07...	<5.6	<.3	<8.3	<.4	<4.5	.6	<4.3	.6
JAN 12...	12	.3	<17	.4	<6.7	1.3	<6.5	1.2
APR 13...	8.2	5.4	<12	8.0	<5.0	5.5	<4.8	5.3

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 07...	1545	75	22	4.5	--
NOV 17...	1115	26	17	1.2	--
FEB 09...	1245	10	6	.16	--
APR 13...	1330	60	226	37	--
MAY 06...	0745	7.5	204	4.1	--
JUN 01...	1315	78	168	36	65
JUL 13...	1130	97	410	107	--
AUG 03...	1215	92	276	69	--
31...	1245	98	178	47	--

GUNNISON RIVER BASIN

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	OCT 7,80	NOV 17,80	JAN 12,81	FEB 9,81	MAR 16,81
TIME	1545	1115	1400	1345	1330
TOTAL CELLS/ML	380	280	65	230	220
DIVERSITY: DIVISION	0.0	0.0	0.0	0.0	1.1
.CLASS	0.0	0.0	0.0	0.0	1.1
..ORDER	1.3	0.0	0.0	0.5	1.4
...FAMILY	2.0	1.2	1.4	1.0	2.7
....GENUS	2.0	1.2	1.4	2.0	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	*	--	*	--	*	--	*	--	*
...OOCYSTACEAE										
....ANKISTRODESMUS	--	*	--	*	--	*	--	*	--	*
....SELENASTRUM	--	*	--	*	--	*	--	*	--	*
....TREUBARIA	--	*	--	*	--	*	--	*	--	*
...SCENEDESMACEAE										
....SCENEDESMUS	77#	20	--	*	--	*	--	*	--	*
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13	3	--	*	--	*	--	*	13	6
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	26	7	--	*	--	*	26	11	13	6
....MELOSIRA	--	*	--	*	--	*	--	*	--	*
....STEPHANODISCUS	--	*	--	*	--	*	--	*	--	*
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	*	13	5	13#	20	90#	39	39#	18
....RHOICOSPHENIA	--	*	--	*	--	*	26	11	--	*
...CYMBELLACEAE										
....CYMBELLA	--	*	--	*	--	*	--	*	--	*
...DIATOMACEAE										
....DIATOMA	--	*	39	14	--	*	--	*	--	*
...FRAGILARIACEAE										
....SYNEDRA	13	3	--	*	13#	20	--	*	--	*
...GOMPHONEMATACEAE										
....GOMPHONEMA	52	14	26	9	--	*	--	*	--	*
...NAVICULACEAE										
....NAVICULA	120#	32	210#	73	39#	60	77#	33	52#	24
...NITZSCHIACEAE										
....NITZSCHIA	52	14	--	*	--	*	13	6	52#	24
...SURIRELLACEAE										
....SURIRELLA	13	3	--	*	--	*	--	*	13	6
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	*	--	*	--	*	--	*	26	12
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	*	--	*	--	*	--	*	--	*
....TRACHELOMONAS	--	*	--	*	--	*	--	*	13	6

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	APR 13,81	MAY 6,81	JUN 1,81	JUL 13,81	AUG 3,81
TIME	1330	0745	1315	1130	1215
TOTAL CELLS/ML	660	320	990	940	130
DIVERSITY: DIVISION	0.5	1.0	0.2	0.7	0.0
.CLASS	0.5	1.0	0.2	0.7	0.0
..ORDER	1.4	1.4	0.3	1.0	0.5
...FAMILY	2.0	2.2	1.1	2.8	1.8
....GENUS	2.0	2.2	1.1	3.0	1.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	14	1	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	14	1	--	-
....SELENASTRUM	--	-	--	-	--	-	56	6	--	-
....TREUBARIA	--	-	--	-	--	-	14	1	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	180#	56	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	64	10	13	4	26	3	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	13	4	13	1	42	4	14	11
....MELOSIRA	--	-	--	-	--	-	28	3	--	-
....STEPHANODISCUS	280#	43	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	39	12	--	-	140	15	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	13	2	13	4	--	-	70	7	--	-
...DIATOMACEAE										
....DIATOMA	13	2	--	-	64	6	--	-	57#	44
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	13	4	13	1	28	3	--	-
...NAVICULACEAE										
....NAVICULA	220#	33	26	8	790#	79	320#	34	43#	33
...NITZSCHIACEAE										
....NITZSCHIA	39	6	26	8	90	9	130	14	14	11
...SURIRELLACEAE										
....SURIRELLA	26	4	--	-	--	-	56	6	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	28	3	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09149500 UNCOMPAHGRE RIVER AT DELTA, CO

LOCATION.--Lat 38°44'31", long 108°04'49", in SW¼SW¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020006, on right bank 525 ft (160 m) downstream from 5th Street Bridge at west edge of Delta and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--1,129 mi² (2,924 km²).

PERIOD OF RECORD.--April 1903 to October 1931 (no winter records in most years), September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24.

REVISED RECORDS.--WSP 1243: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft (1,501.594 m), National Geodetic Vertical Datum of 1929. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft (230 m) upstream at datum 3.43 ft (1.045 m) higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft (320 m) upstream at datum 6.08 ft (1.045 m) higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

REMARKS.--Records good. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion through Gunnison tunnel published with station 09128000) and other adjacent basins, diversions for irrigation of about 90,000 acres (364 km²) above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--45 years (water years 1908, 1921, 1939-81), 275 ft³/s (7.788 m³/s), 199,200 acre-ft/yr (246 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 3,730 ft³/s (106 m³/s) May 5,1941, gage height, 5.90 ft (1.798 m), site and datum then in use, from rating curve extended above 1,900 ft³/s (54 m³/s); no flow at times in 1908; minimum daily determined since beginning of diversion through Gunnison tunnel, 7 ft³/s (0.20 m³/s) July 10-15, 17, 21, 24-28, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) at 0900 July 18, gage height, 5.03 ft (1.533 m); minimum daily 58 ft³/s (1.64 m³/s) Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342	197	178	112	106	62	179	83	580	151	211	427
2	338	189	159	112	102	67	142	120	518	220	192	338
3	308	184	164	112	101	70	143	190	665	227	181	280
4	234	178	168	114	108	73	180	222	538	184	161	247
5	220	172	156	119	113	75	159	170	348	171	152	241
6	220	162	180	123	108	156	155	146	430	151	133	290
7	214	163	179	110	102	155	137	125	581	122	123	286
8	207	156	176	99	110	157	154	139	637	107	117	328
9	120	147	163	102	117	166	162	143	532	100	132	399
10	169	140	152	104	107	162	147	134	494	101	440	408
11	188	143	137	105	77	154	131	137	402	106	289	399
12	206	136	144	107	121	187	132	129	288	197	362	417
13	285	140	153	100	98	197	129	127	228	316	321	425
14	306	170	146	102	90	213	99	113	187	314	321	440
15	389	218	151	106	97	230	104	111	172	384	362	467
16	485	174	148	108	96	299	120	125	203	556	353	444
17	389	162	144	111	93	258	136	140	183	685	360	416
18	339	162	142	106	92	214	155	149	168	898	318	398
19	310	167	142	103	80	175	152	132	149	482	261	389
20	308	180	139	104	81	194	149	147	163	360	216	386
21	316	176	136	102	88	212	99	168	156	261	180	374
22	321	178	132	98	84	210	120	171	144	194	173	351
23	321	177	142	101	79	210	121	166	132	195	169	295
24	310	182	141	108	61	240	113	160	131	245	174	250
25	270	184	131	101	63	251	115	169	126	284	177	247
26	225	181	134	92	64	206	114	182	112	322	163	240
27	248	172	130	93	63	207	117	187	131	464	162	226
28	219	179	130	111	58	259	98	233	132	412	167	223
29	215	185	127	111	---	259	96	420	164	357	177	215
30	214	179	123	105	---	225	107	443	201	287	179	213
31	209	---	115	101	---	218	---	505	---	216	378	---
TOTAL	8441	5133	4562	3282	2559	5761	3965	5586	8895	9069	7104	10059
MEAN	272	171	147	106	91.4	186	132	180	297	293	229	335
MAX	485	218	180	123	121	299	180	505	665	898	440	467
MIN	120	136	115	92	58	62	96	83	112	100	117	213
AC-FT	16740	10180	9050	6510	5080	11430	7860	11080	17640	17990	14090	19950

CAL YR 1980 TOTAL 98545 MEAN 269 MAX 1160 MIN 69 AC-FT 195500
WTR YR 1981 TOTAL 74416 MEAN 204 MAX 898 MIN 58 AC-FT 147600

09149900 POTTER CREEK NEAR COLUMBINE PASS, CO

LOCATION.--Lat 38°28'47", long 108°18'46", in NW¼SW¼ sec.27, T.49 N., R.13 W., Montrose County, Hydrologic Unit 14020005, on right bank 200 ft (61 m) downstream from Roubideau Trail ford and 80 ft (24 m) above a small unnamed tributary entering from the right side.

DRAINAGE AREA.--7.10 mi² (18.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,835 ft (2,388 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft³/s (2.21 m³/s) at 2000 Apr. 29, gage height, 2.56 ft (0.780 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.28	.11	.10	.06	.04	.07	44	5.6	.14	.00	.08
2	.08	.28	.10	.10	.06	.04	.09	44	3.8	.33	.00	.04
3	.08	.28	.10	.10	.06	.04	.12	41	4.5	.24	.00	.03
4	.08	.28	.10	.10	.06	.04	.10	20	4.1	.14	.00	.03
5	.08	.28	.10	.10	.06	.03	.08	14	2.8	.12	.00	.04
6	.08	.20	.11	.10	.06	.03	.11	12	2.5	.10	.00	.06
7	.08	.11	.11	.09	.06	.03	.14	8.4	2.3	.09	.00	.10
8	.08	.11	.11	.09	.05	.03	.15	6.6	1.8	.08	.00	.30
9	.08	.11	.11	.10	.05	.03	.42	8.0	1.5	.10	.00	2.4
10	.08	.11	.11	.10	.05	.03	1.3	8.0	1.2	.28	.00	3.6
11	.08	.11	.11	.10	.04	.03	1.6	7.0	1.1	.20	.00	2.4
12	.08	.11	.11	.10	.04	.03	2.0	6.0	.96	.14	.00	.46
13	.10	.10	.12	.10	.03	.03	2.3	4.9	.78	.13	.00	.30
14	.10	.10	.12	.11	.03	.03	3.2	4.3	.56	.14	.00	.22
15	.28	.10	.11	.11	.03	.03	4.3	3.4	.46	.12	.00	.18
16	.46	.10	.11	.10	.03	.03	8.9	3.8	.46	.11	.00	.14
17	.46	.08	.11	.10	.03	.03	12	4.5	.38	.14	.00	.10
18	.42	.07	.11	.09	.03	.03	14	9.2	.33	.24	.00	.08
19	.38	.06	.11	.10	.03	.03	20	4.7	.28	.12	.00	.06
20	.38	.05	.12	.10	.03	.04	20	3.8	.24	.08	.00	.06
21	.38	.05	.12	.09	.03	.04	17	5.6	.14	.06	.00	.06
22	.38	.04	.11	.09	.03	.04	22	4.5	.13	.03	.00	.26
23	.33	.05	.11	.09	.03	.04	25	3.6	.12	.02	.00	.60
24	.33	.05	.11	.08	.04	.06	32	3.2	.10	.01	.00	.50
25	.28	.04	.11	.08	.04	.07	40	2.8	.12	.00	.00	.44
26	.24	.05	.10	.10	.04	.10	48	2.5	.11	.00	.00	.38
27	.28	.09	.10	.12	.04	.11	46	2.4	.10	.01	.00	.34
28	.28	.11	.10	.09	.04	.09	44	2.8	.11	.00	.02	.30
29	.28	.11	.10	.07	---	.08	46	3.2	.42	.00	.06	.28
30	.28	.11	.10	.07	---	.09	45	2.5	.20	.00	.12	.30
31	.28	---	.10	.06	---	.08	---	2.7	---	.00	.16	---
TOTAL	6.88	3.64	3.35	2.93	1.18	1.45	455.88	289.4	37.20	3.17	.36	14.14
MEAN	.22	.12	.11	.095	.042	.047	15.2	9.34	1.24	.10	.012	.47
MAX	.46	.28	.12	.12	.06	.11	48	44	5.6	.33	.16	3.6
MIN	.08	.04	.10	.06	.03	.03	.07	2.4	.10	.00	.00	.03
AC-FT	14	7.2	6.6	5.8	2.3	2.9	904	574	74	6.3	.7	28

WTR YR 1981 TOTAL 819.58 MEAN 2.25 MAX 48 MIN .00 AC-FT 1630

NOTE.--NO GAGE-HEIGHT RECORD AUG. 7 TO SEPT. 30.

09149900 POTTER CREEK NEAR COLUMBINE PASS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April to September 1981 (discontinued).
WATER TEMPERATURE: April to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1981. Pumping sampler since June 1979.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR APRIL TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum 195 micromhos Sept. 30; minimum 15 micromhos April 30.
WATER TEMPERATURES: Maximum 22.5°C July 21; minimum 0.0°C many days in April.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CACO3)
DEC								
12...	1630	.14	220	212	7.1	.0	--	86
APR								
16...	1200	6.6	35	64	6.7	2.5	11.2	28
MAY								
07...	1300	8.4	45	43	7.0	6.0	8.2	18
JUN								
04...	1300	4.4	58	50	7.4	11.0	8.4	29

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
DEC									
12...	25	5.8	6.6	.3	1.9	70	31	1.8	.1
APR									
16...	8.4	1.6	2.1	.2	1.1	21	4.2	.9	.1
MAY									
07...	5.3	1.2	1.0	.1	.8	13	3.0	.6	.1
JUN									
04...	9.3	1.3	1.3	.1	.9	20	3.3	.6	.0

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
DEC								
12...	5.8	120	.16	.05	.00	.050	10	2
APR								
16...	5.2	37	.05	.66	.19	.020	130	8
MAY								
07...	5.0	25	.03	.57	.02	.020	120	4
JUN								
04...	5.7	35	.05	.42	.00	--	80	4

09149900 POTTER CREEK NEAR COLUMBINE PASS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	32	53	107		---
2							---	30	56	101		---
3							---	31	55	103		151
4							---	34	56	111		155
5							---	37	60	121		155
6							---	39	62	127		155
7							---	42	67	131		156
8							---	44	66	135		151
9							---	46	66	136		151
10							---	48	68	117		153
11							---	50	71	115		150
12							---	51	75	123		143
13							---	52	75	127		142
14							---	55	76	130		143
15							---	57	78	135		145
16							30	55	76	137		148
17							32	51	80	126		152
18							35	52	82	138		154
19							35	53	86	151		157
20							40	55	89	158		160
21							40	52	92	159		162
22							45	52	95	163		163
23							46	56	98	165		165
24							41	57	98	170		180
25							35	59	105	---		178
26							28	60	111	---		172
27							26	62	115	178		174
28							29	61	115	---		180
29							37	59	95	---		188
30							36	60	104	---		192
31							---	59	---	---		---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.5	2.5	11.5	6.5	14.0	13.0			---	---
2	---	---	8.0	4.5	12.5	7.5	16.5	12.0			---	---
3	---	---	7.0	4.0	10.5	8.5	18.5	11.5			16.0	11.5
4	---	---	7.5	2.5	13.0	7.5	20.0	11.0			15.5	10.0
5	---	---	8.0	3.0	14.0	8.0	21.0	10.5			15.5	10.5
6	---	---	7.5	4.0	15.0	8.5	21.5	11.0			13.5	10.5
7	---	---	7.5	3.0	16.0	10.0	22.5	12.0			16.0	10.0
8	---	---	4.5	2.5	16.5	10.5	21.5	13.0			16.0	9.0
9	---	---	7.0	1.5	16.5	11.0	17.0	12.5			14.5	10.5
10	---	---	6.0	2.5	17.5	11.0	20.0	12.0			12.0	9.0
11	---	---	8.5	4.0	17.5	11.0	18.5	13.0			12.5	9.0
12	---	---	8.5	3.5	17.0	10.5	19.0	13.0			12.5	8.5
13	---	---	9.0	2.0	16.0	10.5	17.5	13.0			16.0	8.5
14	---	---	9.5	3.5	14.0	9.5	20.5	12.0			12.5	9.0
15	---	---	9.0	5.0	14.0	6.5	19.5	12.5			13.5	8.0
16	2.5	.0	6.0	4.5	15.0	7.0	17.0	13.0			14.5	8.0
17	3.5	.0	5.0	2.0	16.5	8.5	18.0	11.5			15.0	7.5
18	2.0	.0	7.5	3.5	16.5	8.5	20.0	11.5			15.0	7.5
19	3.0	.0	10.0	4.5	17.5	9.0	21.5	11.5			14.5	7.5
20	2.0	.0	7.0	5.0	18.5	10.0	22.0	11.0			14.5	8.0
21	4.0	.0	8.0	2.0	19.5	10.5	22.5	11.5			14.0	8.5
22	4.5	.0	7.0	4.0	19.5	10.0	22.0	12.0			14.0	8.0
23	5.0	.0	7.0	4.5	19.0	10.5	21.0	12.5			12.0	8.5
24	4.5	.0	8.0	4.5	18.0	11.0	21.0	12.0			13.0	9.0
25	6.0	.0	10.0	5.0	19.0	10.5	---	---			11.5	8.5
26	5.5	1.0	9.5	7.0	21.0	12.0	---	---			11.5	6.0
27	5.0	.0	11.5	7.5	21.5	12.0	17.5	10.0			11.5	6.0
28	7.0	.0	12.0	8.0	16.5	12.0	---	---			12.0	7.0
29	7.5	.0	11.0	7.5	17.0	11.5	---	---			11.5	7.5
30	8.0	1.5	11.5	7.0	20.0	11.5	---	---			11.5	7.5
31	---	---	9.5	8.0	---	---	---	---			---	---

09149910 POTTER CREEK NEAR OLATHE, CO

LOCATION.--Lat 38°36'54", long 108°12'22", in SE¼NE¼ sec.9, T.50 N., R.12 W., Montrose County, Hydrologic Unit 14020005, on right bank 0.38 mi (0.62 km) above confluence with Monitor Creek, 11 mi (18 km) west of Olathe, and 12 mi (19 km) southwest of Delta.

DRAINAGE AREA.--26.0 mi² (67.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft (1,649 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 277 ft³/s (7.84 m³/s) June 4, 1980, gage height, 5.40 ft (1.646 m), from rating curve extended above 40 ft³/s (1.13 m³/s); no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 115 ft³/s (3.26 m³/s) at 1400 Sept. 10, gage height, 4.25 ft (1.295 m), from rating curve extended above 29 ft³/s (0.821 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.00	.00	.00	.00	2.8	36	5.5	.00	.02	.10
2	.01	.01	.00	.00	.00	.00	3.0	35	3.6	.00	.02	.06
3	.01	.01	.00	.00	.00	.00	3.4	29	4.2	.00	.02	.00
4	.01	.01	.00	.00	.00	.00	3.8	34	4.4	.00	.01	.00
5	.01	.01	.00	.00	.00	.00	3.6	26	3.4	.00	.00	.00
6	.02	.01	.00	.00	.00	.00	3.6	16	2.5	.00	.00	.08
7	.02	.01	.00	.00	.00	.00	3.0	9.0	1.2	.00	.00	.14
8	.02	.00	.00	.00	.00	.00	3.6	7.6	1.0	.00	.00	.14
9	.02	.00	.00	.00	.00	.00	3.4	6.5	.60	.00	.00	.85
10	.02	.00	.00	.00	.00	.00	3.8	5.8	.55	.00	.00	3.6
11	.02	.00	.00	.00	.00	.00	4.2	5.4	.38	.00	.00	2.0
12	.02	.00	.00	.00	.00	.00	4.6	4.8	.20	.00	.06	.50
13	.02	.00	.00	.00	.00	.00	4.8	4.2	.12	.32	.10	.30
14	.02	.00	.00	.00	.00	.00	5.0	3.8	.10	.00	.06	.24
15	.02	.00	.00	.00	.00	.00	5.0	3.2	.10	.02	.02	.20
16	.02	.00	.00	.00	.00	.00	5.5	3.5	.06	.02	.00	.18
17	.02	.00	.00	.00	.00	.00	5.6	4.4	.04	.03	.00	.16
18	.02	.00	.00	.00	.00	.00	8.2	4.8	.00	.04	.00	.14
19	.02	.00	.00	.00	.00	.00	13	4.1	.00	.03	.00	.13
20	.01	.00	.00	.00	.00	.00	18	3.1	.00	.02	.00	.13
21	.01	.00	.00	.00	.00	.00	17	4.2	.00	.02	.00	.13
22	.01	.00	.00	.00	.00	.00	20	4.8	.00	.03	.00	.13
23	.01	.00	.00	.00	.00	.02	23	3.5	.00	.03	.00	.30
24	.01	.00	.00	.00	.00	.04	27	2.8	.00	.02	.00	.54
25	.01	.00	.00	.00	.00	.07	31	2.7	.00	.02	.04	.46
26	.01	.00	.00	.00	.00	.16	38	2.6	.00	.03	.00	.40
27	.01	.00	.00	.00	.00	.40	34	2.4	.00	.03	.00	.36
28	.01	.00	.00	.00	.00	.80	30	2.6	.00	.03	.00	.32
29	.01	.00	.00	.00	---	1.2	38	3.0	.00	.03	.00	.28
30	.01	.00	.00	.00	---	2.0	36	2.6	.00	.03	.16	.30
31	.01	---	.00	.00	---	3.0	---	3.2	---	.03	.18	---
TOTAL	.45	.07	.00	.00	.00	7.69	401.9	280.6	27.95	.78	.69	12.17
MEAN	.015	.002	.000	.000	.000	.25	13.4	9.05	.93	.025	.022	.41
MAX	.02	.01	.00	.00	.00	3.0	38	36	5.5	.32	.18	3.6
MIN	.01	.00	.00	.00	.00	.00	2.8	2.4	.00	.00	.00	.00
AC-FT	.9	.1	.00	.00	.00	15	797	557	55	1.5	1.4	24

CAL YR 1980 TOTAL 2507.74 MEAN 6.85 MAX 150 MIN .00 AC-FT 4970
WTR YR 1981 TOTAL 732.30 MEAN 2.01 MAX 38 MIN .00 AC-FT 1450

09149910 POTTER CREEK NEAR OLATHE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April to September 1981 (discontinued).
WATER TEMPERATURE: April to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1981. Pumping sampler since June 1979.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR APRIL TO SEPTEMBER.--
SPECIFIC CONDUCATNCE: Maximum record, 746 micromhos July 13; minimum recorded, 80 micromhos April 22, 23, 26.
WATER TEMPERATURE: Maximum recorded, 32.5ºC June 23; minimum recorded, 3.0ºC April 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
APR												
16...	1545	4.4	320	381	7.9	15.5	120	34	9.0	12	.5	2.6
MAY												
07...	0900	8.8	160	152	7.4	6.0	65	19	4.2	4.8	.3	1.3
JUN												
04...	0930	5.1	220	207	7.5	11.5	89	26	5.9	6.3	.3	1.7

DATE	ALKALINITY LAB (MG/L AS CACO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR											
16...	100	2.6	.2	6.5	172	.23	2.1	.06	.020	40	8
MAY											
07...	58	1.8	.1	5.7	84	.11	2.0	.02	.030	120	10
JUN											
04...	79	1.3	.1	6.8	114	.16	1.6	.00	--	100	10

09149910 POTTER CREEK NEAR OLATHE, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	150	180	463		
2							---	151	210	488		
3							---	152	180	---		
4							---	152	210	---		
5							---	153	257	---		
6							---	154	292	---		
7							---	155	324	---		
8							---	160	354	---		
9							---	167	386	---		
10							---	172	413	449		
11							---	178	436	464		
12							---	184	455	386		
13							---	200	467	682		
14							---	210	474	640		
15							---	230	479	647		
16							---	220	484	645		
17							262	200	486	---		
18							199	190	---	---		
19							164	220	---	---		
20							158	243	496	---		
21							139	220	468	---		
22							111	190	469	---		
23							108	210	507	---		
24							130	250	---	---		
25							113	280	---	---		
26							97	290	459	---		
27							110	310	462	---		
28							125	290	486	---		
29							140	260	494	---		
30							150	280	516	---		
31							---	300	---	---		

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	14.0	6.5	---	---	21.0	18.0				
2	---	---	13.5	8.5	---	---	30.5	17.0				
3	---	---	15.0	8.0	---	---	---	---				
4	---	---	14.5	6.0	---	---	---	---				
5	---	---	12.0	6.0	24.0	12.0	---	---				
6	---	---	15.0	7.0	26.0	13.0	---	---				
7	---	---	15.5	6.0	26.0	14.5	---	---				
8	---	---	11.0	5.0	26.5	14.5	---	---				
9	---	---	15.5	4.5	26.0	14.5	---	---				
10	---	---	16.5	5.5	28.0	14.5	25.0	20.0				
11	---	---	14.5	7.0	27.5	14.5	19.5	17.0				
12	---	---	11.5	7.0	27.0	13.5	20.5	20.0				
13	---	---	17.5	5.0	26.0	13.0	25.0	18.5				
14	---	---	17.5	7.0	19.0	9.5	31.5	16.5				
15	---	---	15.0	9.0	23.5	7.5	31.5	17.0				
16	---	---	12.0	9.0	25.5	8.5	---	---				
17	14.5	5.5	11.5	7.5	27.0	10.5	---	---				
18	12.0	6.0	18.0	7.0	---	---	---	---				
19	13.5	5.5	18.5	9.0	---	---	---	---				
20	11.0	4.0	14.0	10.5	29.0	13.5	---	---				
21	13.0	3.5	16.0	7.0	31.0	14.0	---	---				
22	12.5	4.5	---	---	32.0	19.0	---	---				
23	12.5	3.0	---	---	32.5	26.5	---	---				
24	13.0	4.0	---	---	---	---	---	---				
25	13.5	4.0	---	---	---	---	---	---				
26	11.5	3.5	---	---	22.5	19.5	---	---				
27	11.5	4.0	---	---	30.5	16.5	---	---				
28	13.0	4.5	---	---	24.5	17.5	---	---				
29	13.5	4.5	---	---	32.0	14.5	---	---				
30	14.5	5.5	---	---	32.0	27.0	---	---				
31	---	---	---	---	---	---	---	---				

09150500 ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO

LOCATION.--Lat 38°44'06", long 108°09'40", in SE¼NE¼ sec.19, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank 90 ft (27 m) upstream from railroad bridge, 0.3 mi (0.5 km) upstream from mouth, and 5.0 mi (8.0 km) west of Delta.

DRAINAGE AREA.--242 mi^2 (627 km^2).

PERIOD OF RECORD.--October 1938 to September 1954, May 1976 to current year. Prior to April 1939, monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,864.34 ft (1,482.651 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1948, at site 0.2 mi (0.3 km) upstream at datum 4.86 ft (1.481 m) higher.

REMARKS.--Records good. Part of discharge is return flow from lands irrigated under lower end of Ironstone Canal from Uncompahgre River. Diversions for irrigation of a few hundred acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years (water years 1939-54, 1977-81), 120 ft^3/s (3.398 m^3/s), 86,940 acre-ft/yr (107 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft^3/s (83.5 m^3/s) Aug. 5, 1945, gage height, 7.76 ft (2.365 m), site and datum then in use, from rating curve extended above 1,300 ft^3/s (37 m^3/s); minimum observed, 9.6 ft^3/s (0.27 m^3/s) Apr. 7, 1977 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 418 ft^3/s (11.8 m^3/s) at 1700 Sept. 10, gage height, 3.56 ft (1.085 m); no peak above base of 810 ft^3/s (23 m^3/s); minimum daily, 20 ft^3/s (0.566 m^3/s) Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	96	60	45	31	42	77	270	140	38	58	110
2	53	97	56	46	31	43	69	277	131	51	51	103
3	52	95	51	46	31	43	68	336	126	41	48	103
4	63	92	50	47	31	42	80	296	132	40	38	109
5	64	92	50	48	31	42	84	245	122	39	31	121
6	59	93	52	48	33	39	75	212	103	35	33	122
7	59	94	52	45	31	45	54	182	85	31	37	128
8	66	91	52	43	30	47	85	156	70	28	36	144
9	44	83	51	43	34	46	83	152	62	37	37	148
10	52	71	48	44	34	44	80	129	58	39	40	228
11	57	80	47	42	28	43	77	120	42	38	51	167
12	58	75	46	42	24	30	66	106	49	46	57	162
13	87	89	49	42	31	20	71	97	46	66	74	167
14	87	97	48	41	38	37	70	90	42	68	73	164
15	118	71	47	40	43	51	78	89	40	68	87	146
16	118	59	48	41	40	51	89	95	40	76	102	130
17	105	69	50	43	38	61	113	104	40	91	102	127
18	108	75	55	43	35	58	128	105	34	70	75	121
19	114	69	54	43	36	92	155	99	30	93	51	113
20	125	65	53	42	35	90	213	102	30	80	43	114
21	128	67	51	42	37	89	172	118	25	60	46	103
22	129	66	51	41	36	67	198	101	25	52	51	88
23	124	67	54	40	35	59	218	93	27	53	50	87
24	127	69	51	41	41	59	238	81	31	57	51	99
25	121	66	50	40	48	53	243	86	29	61	55	96
26	75	64	50	38	50	46	299	83	25	89	51	90
27	72	58	49	38	53	88	308	80	34	101	57	86
28	76	58	49	39	46	64	282	106	32	87	54	87
29	101	55	48	37	---	51	282	116	35	78	53	76
30	98	65	47	33	---	50	279	112	37	70	67	74
31	96	---	45	32	---	88	---	117	---	60	85	---
TOTAL	2693	2288	1564	1295	1011	1680	4334	4355	1722	1843	1744	3613
MEAN	86.9	76.3	50.5	41.8	36.1	54.2	144	140	57.4	59.5	56.3	120
MAX	129	97	60	48	53	92	308	336	140	101	102	228
MIN	44	55	45	32	24	20	54	80	25	28	31	74
AC-FT	5340	4540	3100	2570	2010	3330	8600	8640	3420	3660	3460	7170

CAL YR 1980 TOTAL 57787 MEAN 158 MAX 1600 MIN 19 AC-FT 114600
WTR YR 1981 TOTAL 28142 MEAN 77.1 MAX 336 MIN 20 AC-FT 55820

09151500 ESCALANTE CREEK NEAR DELTA, CO

LOCATION.--Lat 38°45'24", long 108°15'34", in E½ sec.8, T.15 S., R.97 W., Sixth Principal Meridian, Delta County, Hydrologic Unit 14020005, on left bank just upstream from county bridge, 0.2 mi (0.3 km) upstream from mouth, and 10.5 mi (16.9 km) west of Delta.

DRAINAGE AREA.--209 mi² (541 km²).

PERIOD OF RECORD.--April 1922 to September 1923, May 1976 to current year.

REVISED RECORDS.--WSP 1313: 1923 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 4,810 ft (1,463 m), from topographic map. Prior to September 1923, nonrecording gage at different datum operated by State Engineer of Colorado.

REMARKS.--Records good, except those for winter period, which are fair. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 50.6 ft³/s (1.433 m³/s), 36,660 acre-ft/yr (45.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) July 24, 1977, gage height, 8.54 ft (2.603 m), from floodmarks, from rating curve extended above 320 ft³/s (9.1 m³/s), on basis of slope-area measurement of peak flow; no flow June 23-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 215 ft³/s (6.09 m³/s) at 2400 July 17, gage height, 4.04 ft (1.231 m); no flow June 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	12	13	10	8.0	12	13	91	15	1.5	3.7	9.4
2	17	13	12	10	7.5	12	14	82	11	1.4	3.5	9.4
3	16	13	12	9.8	7.5	12	16	86	10	1.6	3.2	9.4
4	15	13	12	9.9	8.0	11	18	72	21	1.7	3.2	5.3
5	13	14	12	10	8.0	11	17	57	14	1.6	3.4	1.1
6	12	14	13	10	8.5	11	17	48	9.9	1.6	3.4	1.6
7	11	14	13	7.6	8.0	10	14	43	7.0	1.2	2.1	2.4
8	10	14	13	8.8	7.5	10	17	38	5.5	.28	.79	2.1
9	9.7	15	11	9.9	8.5	11	16	34	4.1	2.4	.91	2.7
10	9.1	15	8.2	10	8.5	11	19	29	3.7	1.9	.68	3.8
11	8.8	15	11	10	7.5	11	25	28	2.3	1.1	3.5	3.4
12	8.4	14	12	9.9	7.0	11	28	24	.78	2.1	2.9	9.5
13	8.4	14	12	9.6	8.0	11	28	21	.55	11	8.4	5.6
14	7.7	15	12	9.5	9.5	11	31	18	.63	11	6.0	3.9
15	7.8	15	12	9.5	11	11	39	15	.70	5.8	5.8	3.4
16	7.8	14	12	9.5	10	11	76	16	.72	3.9	4.6	2.9
17	8.7	13	11	10	9.5	12	98	20	.48	12	4.2	2.7
18	9.5	12	11	10	9.0	11	104	18	.32	32	4.4	2.2
19	10	13	11	9.8	9.0	11	123	16	.26	11	4.3	2.2
20	11	13	11	10	9.0	11	119	15	.39	7.9	3.6	2.2
21	11	13	11	9.5	9.9	12	84	20	.24	6.7	4.0	2.2
22	11	13	11	9.5	9.6	11	95	17	.20	5.5	7.0	2.2
23	11	13	12	9.0	9.0	11	94	13	.00	15	27	2.2
24	11	13	9.5	9.5	10	13	104	12	.00	6.0	13	10
25	11	14	11	9.0	11	13	119	8.8	.00	3.8	12	7.8
26	12	13	10	8.7	11	13	126	7.0	.37	3.8	13	6.8
27	12	13	10	9.5	11	15	121	6.5	.86	6.9	12	5.9
28	13	13	11	9.5	11	15	101	7.5	.23	4.5	10	5.0
29	12	13	10	9.0	---	14	98	20	1.6	3.9	9.4	4.7
30	12	12	8.8	8.5	---	14	96	17	1.1	3.6	9.4	4.7
31	12	---	9.8	8.0	---	14	---	14	---	3.7	9.4	---
TOTAL	347.9	405	348.3	293.5	252.0	367	1870	913.8	112.93	176.38	198.78	136.7
MEAN	11.2	13.5	11.2	9.47	9.00	11.8	62.3	29.5	3.76	5.69	6.41	4.56
MAX	19	15	13	10	11	15	126	91	21	32	27	10
MIN	7.7	12	8.2	7.6	7.0	10	13	6.5	.00	.28	.68	1.1
AC-FT	690	803	691	582	500	728	3710	1810	224	350	394	271

CAL YR 1980 TOTAL 36553.74 MEAN 99.9 MAX 966 MIN .55 AC-FT 72500
WTR YR 1981 TOTAL 5422.29 MEAN 14.9 MAX 126 MIN .00 AC-FT 10760

09152000 KANNAH CREEK NEAR WHITEWATER, CO

LOCATION.--Lat 38°57'42", long 108°13'47", in NW¼SW¼ sec.34, T.12 S., R.97 W., Mesa County, Hydrologic Unit 14020005, on right bank at downstream side of county bridge, 0.2 mi (0.3 km) downstream from intake of pipeline for Grand Junction water supply, and 12 mi (19 km) east of Whitewater.

DRAINAGE AREA.--61.9 mi² (160.3 km²).

PERIOD OF RECORD.--October 1917 to September 1921, September 1922 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Kannah Creek near Whitewater.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,060 ft (1,847 m), from topographic map. Prior to Sept. 30, 1932, nonrecording gage, and Sept. 30, 1932, to Oct. 14, 1935, water-stage recorder, at site 300 ft (91 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station for municipal supply of Grand Junction and minor diversion by Raber ditch for irrigation of about 60 acres (243,000 m²) below station. Records of municipal supply furnished by Colorado Division of Water Resources and monthly figures are adjusted to show total flow of stream. Daily figures are for stream below city and Raber ditch diversions. Regulation by a few small reservoirs above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE (COMBINED FLOW).--63 years (water years 1918-21, 1923-81), 37.6 ft³/s (1.065 m³/s), 27,240 acre-ft/yr (33.6 hm³/yr).

EXTREMES (COMBINED FLOW) FOR PERIOD OF RECORD.--Maximum discharge observed, 1,640 ft³/s (46.4 m³/s) June 6, 1921, gage height, 4.5 ft (1.37 m), site and datum then in use, from rating curve extended above 700 ft³/s (20 m³/s); minimum daily, 3.3 ft³/s (0.093 m³/s) Jan. 9, 1981.

EXTREMES (COMBINED FLOW) FOR CURRENT YEAR.--Maximum discharge, 291 ft³/s (8.24 m³/s) at 2130 May 3, gage height, 1.98 ft (0.604 m), maximum gage height 3.19 ft (0.972 m) July 11 (backwater from debris); minimum daily discharge 3.3 ft³/s (0.093 m³/s) Jan. 9.

CORRECTION.--The figures of adjustment for diversions for municipal supply of Grand Junction were omitted from the annual report for 1980. The complete 1980 water year and adjusted figures are being published herewith.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	8.5	1.7	1.4	1.0	1.0	.60	34	332	44	31	23
2	17	9.0	1.7	1.4	.60	1.0	.50	31	310	46	30	22
3	15	10	1.7	1.3	.30	1.0	.70	30	384	42	30	21
4	14	8.7	1.7	1.3	.30	1.0	.70	32	354	37	30	19
5	12	8.7	1.7	1.3	.30	1.0	1.1	37	366	34	30	18
6	12	8.7	1.6	1.3	.30	1.0	1.7	36	349	33	30	17
7	11	9.1	1.6	1.3	.30	1.0	2.0	58	434	33	30	17
8	8.7	8.7	1.6	1.2	.30	1.0	1.9	65	408	34	28	18
9	9.1	8.7	1.5	1.2	.14	1.0	1.8	51	427	32	27	22
10	7.9	8.3	1.7	1.2	.20	1.0	2.3	41	402	32	24	24
11	7.5	8.3	1.7	1.2	.28	1.1	2.0	44	327	32	21	24
12	7.9	7.0	1.1	1.1	.30	1.0	1.6	44	305	32	23	24
13	6.2	6.5	1.2	1.2	.11	1.0	1.7	39	310	32	24	23
14	4.6	8.0	1.6	1.6	.11	.90	2.8	36	270	31	27	21
15	3.2	6.0	1.3	1.2	.15	.80	5.0	33	219	30	27	20
16	2.8	1.8	1.6	1.1	.25	.60	6.6	33	174	28	27	18
17	3.2	1.1	1.4	1.1	.90	.50	7.5	62	149	26	26	10
18	3.8	2.5	1.7	1.1	.60	.40	8.3	48	135	24	26	10
19	3.8	1.7	.08	1.0	.90	.30	13	44	126	23	26	9.7
20	4.0	1.6	.80	.20	2.2	.30	18	53	114	21	26	9.1
21	5.4	.70	.50	.60	2.2	.40	30	82	102	19	24	9.1
22	4.3	1.0	.80	1.7	2.2	.70	30	114	85	20	24	7.0
23	5.8	1.4	1.1	.90	2.2	.70	26	160	72	24	24	7.9
24	12	1.7	.90	1.3	1.7	.70	22	138	62	33	27	9.7
25	11	1.6	1.4	1.3	2.0	.80	22	114	55	33	26	9.1
26	11	1.7	1.5	1.5	2.0	.70	22	129	51	32	23	8.3
27	11	1.7	1.5	1.6	.80	.70	20	146	50	31	18	7.9
28	11	1.5	1.4	1.4	1.1	.60	21	194	46	32	17	7.9
29	12	1.6	1.4	1.2	1.1	.60	22	210	42	32	24	6.6
30	12	1.6	1.4	1.4	---	.60	39	228	42	32	24	6.2
31	8.0	---	1.4	1.3	---	.60	---	260	---	32	24	---
TOTAL	275.2	147.40	42.28	37.90	24.84	24.00	333.80	2626	6502	966	798	449.5
MEAN	8.88	4.91	1.36	1.22	.86	.77	11.1	84.7	217	31.2	25.7	15.0
MAX	18	10	1.7	1.7	2.2	1.1	39	260	434	46	31	24
MIN	2.8	.70	.08	.20	.11	.30	.50	30	42	19	17	6.2
AC-FT	546	292	84	75	49	48	662	5210	12900	1920	1580	892

ADJUSTED FOR DIVERSION

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.5	12.2	8.49	7.80	7.16	9.08	19.8	93.3	226	38.2	33.3	24.1
AC-FT	1010	729	522	480	412	559	1180	5740	13420	2350	2050	1440

			OBSERVED				ADJUSTED	
CAL YR 1979	TOTAL	10726.66	MEAN 29.4	MAX 378	MIN .08	AC-FT 21280	MEAN 37.8	AC-FT 27400
WTR YR 1980	TOTAL	12226.92	MEAN 33.4	MAX 434	MIN .08	AC-FT 24250	MEAN 41.3	AC-FT 28890

09152000 KANNAH CREEK NEAR WHITEWATER, CO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	3.7	2.5	1.4	4.1	.40	.50	105	80	3.8	14	5.0
2	5.3	3.9	2.0	1.5	4.1	.50	.80	174	65	5.0	15	5.4
3	4.2	3.8	2.4	1.5	4.1	.50	1.1	270	105	4.0	13	7.0
4	3.3	3.8	2.7	1.5	3.9	.60	.80	149	68	11	12	7.9
5	3.6	3.8	3.2	1.6	3.8	.50	2.8	120	70	16	11	7.9
6	5.8	3.9	3.1	1.5	3.8	.60	1.6	105	62	16	12	9.1
7	5.7	3.9	2.5	1.2	3.8	.60	1.2	65	53	15	12	9.1
8	4.0	4.0	2.4	1.1	3.9	.90	.90	51	41	15	10	8.7
9	3.1	4.0	3.0	1.0	3.9	1.0	1.8	42	36	15	11	7.9
10	5.2	3.6	4.0	.88	3.9	.50	4.6	44	31	18	11	9.1
11	10	3.7	3.3	.85	3.9	.40	5.4	48	31	50	13	9.7
12	13	3.3	3.0	.84	3.9	.60	4.6	46	27	22	16	17
13	15	3.2	4.0	.84	3.9	.60	4.6	41	27	21	20	14
14	11	3.3	4.0	.80	3.9	.60	6.6	46	27	20	14	7.0
15	11	3.5	2.0	.74	3.8	.60	9.7	55	24	14	12	6.2
16	11	2.5	2.0	.72	4.0	.80	11	53	22	14	11	5.8
17	11	1.3	1.9	.76	4.0	.90	14	51	20	14	9.7	4.6
18	7.9	1.2	1.9	.80	3.8	.80	14	51	19	14	8.3	4.3
19	6.1	2.5	1.8	.78	4.0	.70	19	53	20	13	9.1	4.6
20	6.4	3.5	1.7	.76	4.3	.70	18	55	20	11	12	5.4
21	6.5	4.0	1.6	.70	4.6	.70	12	55	18	9.7	13	5.8
22	6.0	4.6	1.5	.70	4.0	.70	12	60	15	9.1	13	5.8
23	6.2	5.0	1.4	.74	5.4	.80	15	62	12	7.9	14	5.4
24	6.7	4.0	1.3	.76	3.8	1.1	18	58	8.7	8.7	12	5.4
25	5.2	3.5	1.3	.79	3.5	1.0	18	65	7.0	15	8.3	5.8
26	4.3	2.8	1.2	4.5	1.1	1.0	19	68	4.6	24	6.2	7.9
27	5.3	2.4	1.3	4.5	.80	1.0	22	120	3.2	18	5.8	8.7
28	3.7	2.4	1.3	4.5	.50	.80	30	186	3.2	12	5.4	8.7
29	3.6	2.5	1.3	4.4	---	.60	51	111	4.6	14	5.8	11
30	3.2	3.3	1.3	4.3	---	.80	60	95	3.8	16	6.2	12
31	3.7	---	1.4	4.2	---	1.6	---	85	---	15	5.8	---
TOTAL	203.4	100.9	68.3	51.16	102.50	22.90	380.00	2589	928.1	461.2	341.6	232.2
MEAN	6.56	3.36	2.20	1.65	3.66	.74	12.7	83.5	30.9	14.9	11.0	7.74
MAX	15	5.0	4.0	4.5	5.4	1.6	60	270	105	50	20	17
MIN	3.1	1.2	1.2	.70	.50	.40	.50	41	3.2	3.8	5.4	4.3
AC-FT	403	200	135	101	203	45	754	5140	1840	915	678	461

ADJUSTED FOR DIVERSION

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.1	11.2	10.2	7.57	8.22	6.94	19.6	90.4	38.6	21.9	18.4	15.1
AC-FT	867	666	627	465	457	427	1170	5560	2300	1350	1130	899

	OBSERVED						ADJUSTED	
CAL YR 1980	TOTAL	12134.64	MEAN 33.2	MAX 434	MIN .11	AC-FT 24070	MEAN 41.2	AC-FT 29800
WTR YR 1981	TOTAL	5481.26	MEAN 15.0	MAX 270	MIN .40	AC-FT 10870	MEAN 22.0	AC-FT 15920

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO

LOCATION.--Lat 38°59'00", long 108°27'00", near center of sec.14, T.2 S., R.1 E., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 180 ft (55 m) upstream from bridge on State Highway 141, 0.4 mi (0.6 km) downstream from Whitewater Creek, 0.5 mi (0.8 km) south of Whitewater, and 8 mi (13 km) southeast of Grand Junction.

DRAINAGE AREA.--7,928 mi² (20,534 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

REVISED RECORDS.--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,628.12 ft (1,410.651 m), National Geodetic Vertical Datum of 1929. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft³/s (1.7 m³/s) diverted below gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres (943 km²) above station, storage reservoirs, and return flow from irrigated lands.

AVERAGE DISCHARGE.--73 years (water years 1897-99, 1902-6, 1917-81), 2,522 ft³/s (71.42 m³/s), 1,827,000 acre-ft/yr (2,250 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,700 ft³/s (1,010 m³/s) May 23, 1920, gage height, 14.95 ft (4.557 m), site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s); minimum daily, 106 ft³/s (3.00 m³/s) July 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,300 ft³/s (122 m³/s) at 2400 May 3, gage height, 5.34 ft (1.628 m); minimum daily, 483 ft³/s (13.7 m³/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	2090	2360	2220	974	1490	846	2410	2560	685	724	1350
2	1080	2100	2300	2260	1000	1510	749	2060	2270	662	737	1310
3	1000	1720	2330	2250	915	1520	726	2740	2300	885	686	1250
4	892	1580	2360	2250	1130	1520	801	3710	2680	837	622	1220
5	820	2260	2360	2250	1200	1500	768	2490	2230	754	552	1200
6	880	2320	2420	2220	983	1340	724	2030	2120	701	529	1270
7	928	2630	2460	2190	1140	1250	663	1770	2200	592	518	1300
8	1340	2710	2450	2170	1030	1240	685	1500	2320	524	513	1330
9	1810	2580	2370	2140	1280	1250	800	1430	2130	483	540	1420
10	1020	2510	2320	2200	1570	1230	749	1280	2000	508	822	1520
11	817	2460	2220	2200	1210	1230	801	1140	1830	645	890	1510
12	982	2400	2220	2210	1490	1240	785	1070	1590	782	1160	1570
13	1750	2250	2300	2170	1540	1180	870	1010	1400	1040	1160	1580
14	1220	2610	2300	2160	1520	1120	817	923	1160	1080	1160	1520
15	1020	2450	2310	2170	1540	1170	935	819	1050	991	1120	1540
16	1060	2370	2260	2210	1540	1140	1230	846	892	1190	1310	1470
17	1100	2390	2290	2210	1520	1170	1410	944	823	1640	1280	1400
18	1330	2340	2330	2210	1510	1130	1460	1030	709	1890	1160	1360
19	1750	2380	2370	2220	1500	1080	1670	971	677	1520	967	1320
20	1350	2480	2320	2170	1500	1040	2060	942	653	1210	849	1290
21	1390	2450	2340	2160	1520	1070	1990	1040	683	1020	770	1260
22	1670	2380	2270	2160	1490	1060	1400	1230	699	876	735	1200
23	1010	2380	2330	2160	1480	1020	1340	1140	667	785	794	1140
24	949	2430	2350	2200	1480	951	1340	1050	622	796	781	1110
25	1010	2400	2310	2210	1490	937	1460	1080	576	902	751	1110
26	1030	2360	2380	2200	1490	848	1620	1100	530	1080	727	1060
27	996	2240	2300	2200	1550	819	1700	1210	544	1220	698	1000
28	1240	2380	2260	2250	1510	867	1610	1400	599	1210	686	1000
29	932	2290	2290	1490	---	907	1590	2000	656	1040	731	976
30	2150	2360	2270	941	---	828	1940	2240	691	875	895	955
31	2320	---	2230	1020	---	875	---	2230	---	792	1150	---
TOTAL	38066	70300	71980	65071	38102	35532	35539	46835	39861	29215	26017	38541
MEAN	1228	2343	2322	2099	1361	1146	1185	1511	1329	942	839	1285
MAX	2320	2710	2460	2260	1570	1520	2060	3710	2680	1890	1310	1580
MIN	817	1580	2220	941	915	819	663	819	530	483	513	955
AC-FT	75500	139400	142800	129100	75580	70480	70490	92900	79060	57950	51600	76450

CAL YR 1980 TOTAL 1138973 MEAN 3112 MAX 13100 MIN 817 AC-FT 2259000
WTR YR 1981 TOTAL 535059 MEAN 1466 MAX 3710 MIN 483 AC-FT 1061000

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.
WATER TEMPERATURES: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,000 micromhos on several days during July and September 1974; minimum, 194 micromhos June 6, 1979.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 13, 1958; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,670 micromhos July 11; minimum, 528 micromhos April 22.
WATER TEMPERATURE: Maximum, 27.0°C July 8; minimum, 0.0°C February 11, 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
08...	1400	1660	1020	1020	8.3	14.0	7.5	8.8	20	21	420
NOV											
24...	1210	2490	760	764	8.4	5.5	1.8	10.4	K33	30	280
DEC											
29...	1400	2400	670	696	7.3	6.0	1.0	12.2	K8	25	250
JAN											
26...	1345	1350	510	617	8.2	4.0	1.7	11.1	K2	21	250
FEB											
23...	1330	1500	680	714	8.3	4.5	8.2	11.6	--	14	280
MAR											
24...	1400	944	840	874	8.7	11.0	23	10.2	K6	100	330
APR											
21...	1400	1810	650	604	7.6	11.5	310	8.8	280	520	240
MAY											
19...	1030	990	1160	1200	8.4	14.0	--	8.5	52	42	500
JUN											
23...	1300	815	1330	1350	8.2	21.5	5.0	6.9	<20	K10	570
JUL											
27...	1400	1270	1504	1510	8.4	19.5	360	6.4	740	1300	680
AUG											
26...	1200	708	1562	1590	8.1	20.5	56	6.6	--	--	680
SEP											
29...	1200	921	1310	1490	8.6	15.5	20	7.7	94	K24	560

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT										
08...	110	35	58	1.2	4.0	140	380	7.8	.4	12
NOV										
24...	71	26	46	1.2	3.3	88	270	6.3	.4	12
DEC										
29...	63	23	40	1.1	2.8	120	210	5.8	.3	12
JAN										
26...	64	22	39	1.1	2.3	110	210	5.2	.4	12
FEB										
23...	68	26	46	1.2	2.6	120	250	7.3	1.1	12
MAR										
24...	81	31	57	1.4	3.5	130	280	7.9	.3	11
APR										
21...	60	21	34	1.0	2.6	98	200	10	.3	11
MAY										
19...	130	43	78	1.5	3.9	160	490	11	.4	9.8
JUN										
23...	150	48	89	1.6	4.4	130	570	14	.4	8.0
JUL										
27...	190	51	94	1.6	4.9	200	660	17	.6	17
AUG										
26...	180	57	100	1.8	5.0	190	670	30	.7	16
SEP										
29...	146	48	83	1.6	4.3	150	550	11	.5	14

K BASED ON NON-IDEAL COLONY COUNT.

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT 08...	729	695	.99	3310	.86	.71	.060	.88	.94	.83
NOV 24...	524	492	.71	3520	--	.97	.080	.54	.62	.35
DEC 29...	461	432	.63	2990	.61	.60	.070	.26	.33	.36
JAN 26...	405	424	.55	1470	.53	.56	.060	.73	.79	.79
FEB 23...	473	488	.64	1920	.57	.68	.010	1.2	1.20	.67
MAR 24...	594	553	.81	1510	.58	.59	.030	.97	1.00	1.0
APR 21...	415	406	.56	2030	.81	1.9	.110	.89	1.00	.99
MAY 19...	903	869	1.2	2410	1.5	1.5	.110	.77	.88	.96
JUN 23...	1040	970	1.4	2290	1.7	1.8	.100	.81	.91	.74
JUL 27...	1240	1170	1.7	4250	2.9	2.9	.150	1.3	1.40	1.2
AUG 26...	1290	1190	1.8	2470	2.6	2.7	<.060	--	1.10	.72
SEP 29...	1010	953	1.4	2510	1.3	1.3	.070	1.1	1.20	.99

DATE	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
OCT 08...	1.8	.030	.010	--	20	10	0	--	5.8	--
NOV 24...	--	.030	.010	--	--	--	--	5.4	--	28000
DEC 29...	.94	.040	.050	--	--	--	--	11	--	--
JAN 26...	1.3	.040	.040	--	--	--	--	--	--	--
FEB 23...	1.8	.000	.010	--	--	--	--	--	--	--
MAR 24...	1.6	.030	.030	--	70	40	0	--	6.0	7500
APR 21...	1.8	.320	.050	--	--	--	--	16	--	--
MAY 19...	2.4	.060	.040	--	--	--	--	8.1	--	1500
JUN 23...	2.6	.020	.020	.020	10	20	0	--	5.3	5200
JUL 27...	4.3	.650	.030	--	--	--	--	11	--	3200
AUG 26...	3.7	.100	.030	--	18	14	0	--	3.4	--
SEP 29...	2.5	.050	<.010	--	--	--	--	3.9	--	1100

09152500 GUNNISON RIVER NEAR GRAND JUNCTICN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT												
08...	1400	2	2	0	50	0	1	0	0	0	<3	4
MAR												
24...	1400	3	1	100	60	0	1	10	10	0	<3	3
JUN												
23...	1300	3	3	100	0	0	<1	10	10	0	<3	3
AUG												
26...	1200	5	3	100	60	0	<1	10	0	2	<3	5

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT												
08...	2	450	5	4	50	.0	.0	8	8	0	30	<3
MAR												
24...	1	1100	0	0	90	.4	.0	8	8	0	20	8
JUN												
23...	2	190	12	2	40	.0	.1	--	13	0	10	20
AUG												
26...	5	880	5	1	50	.1	.1	14	16	0	20	10

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
08...	1400	1680	26	118
DEC				
29...	1330	2400	24	156
FEB				
23...	1530	1510	14	57
APR				
21...	1400	1810	518	2530
MAY				
19...	1200	990	43	115
JUN				
23...	1100	815	44	97
AUG				
26...	1200	708	225	430

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	839	748	664	712	697	839	600	1020	1490	1470	880
2	1050	825	756	670	698	690	839	580	831	1470	1470	800
3	1050	820	744	673	676	702	835	668	873	1540	1490	860
4	1050	905	747	677	680	712	838	615	908	1470	1520	900
5	1050	850	747	681	694	718	824	611	933	1470	1530	880
6	1040	806	747	685	728	726	826	712	952	1490	1550	880
7	1040	780	782	693	735	764	814	786	966	1510	1560	860
8	981	748	804	689	719	808	791	842	978	1560	1600	840
9	801	735	791	682	717	832	769	888	990	1580	1350	840
10	854	724	767	690	740	834	742	923	1010	1600	1200	840
11	967	723	745	688	720	798	725	917	1030	1640	1100	830
12	941	731	710	686	744	774	718	928	1060	1590	1050	830
13	959	742	692	674	728	771	701	948	1080	1580	1000	840
14	1050	744	694	666	704	773	684	978	1090	1560	1050	820
15	1260	759	686	661	707	801	667	1020	1110	1520	1000	820
16	1280	764	687	665	726	765	650	1050	1150	1520	940	840
17	1200	764	690	661	708	770	633	1080	1240	1440	840	840
18	1120	758	685	662	705	752	616	1120	1300	1380	940	860
19	1100	757	685	648	704	754	619	1160	1350	1360	1080	900
20	1060	762	680	643	693	770	612	1150	1370	1400	1200	920
21	1050	757	683	656	695	776	580	1150	1360	1470	1310	940
22	1040	756	680	638	683	792	613	1110	1360	1510	1400	980
23	1050	763	691	633	669	800	692	1080	1330	1540	1300	1000
24	1050	762	697	641	665	829	711	1100	1330	1560	1350	1050
25	1090	770	686	643	655	830	722	1120	1340	1570	1400	1070
26	1070	780	680	626	663	843	722	1100	1390	1580	1480	1100
27	1040	754	672	603	670	860	708	1120	1430	1480	1570	1150
28	1060	739	674	617	715	861	688	1070	1490	1400	1470	1200
29	1060	737	680	629	---	859	666	1070	1500	1430	1300	1260
30	1020	747	676	728	---	852	640	1120	1510	1450	1150	1360
31	839	---	669	722	---	856	---	1150	---	1460	1000	---

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.0	10.5	8.5	7.5	6.5	6.0	4.5	4.5	2.5	6.5	4.5
2	18.0	15.0	10.5	8.5	7.0	6.5	6.0	5.0	4.5	2.5	6.0	4.5
3	17.5	14.0	10.0	8.5	8.0	6.5	6.5	5.0	4.0	2.0	6.5	4.5
4	17.5	14.5	10.0	8.5	8.5	7.5	6.5	5.0	4.0	1.5	7.5	5.0
5	17.0	14.0	11.0	9.0	7.5	7.0	6.5	5.5	.0	2.0	7.5	4.5
6	17.0	14.0	11.0	9.0	8.0	7.0	6.5	4.5	3.5	2.0	6.5	5.5
7	17.5	14.5	10.5	9.0	8.0	7.5	6.0	5.0	3.5	1.0	6.0	4.5
8	17.5	14.5	10.5	9.5	7.5	7.0	6.0	4.5	2.5	1.0	7.5	4.5
9	17.0	13.5	10.5	9.0	7.5	6.0	5.5	4.0	3.0	1.5	8.0	5.0
10	16.5	13.5	10.5	9.0	6.5	5.5	5.5	4.0	3.0	1.5	8.0	6.0
11	15.5	12.5	10.0	9.0	6.0	5.0	5.5	4.0	1.0	.0	7.5	6.0
12	14.0	12.5	10.5	9.0	6.0	4.5	5.5	4.0	2.0	.0	8.5	6.0
13	14.5	12.0	10.0	9.5	6.0	5.0	5.5	4.0	4.5	2.0	8.0	5.5
14	14.5	13.0	9.0	8.0	6.0	4.5	5.0	3.5	4.5	2.5	7.5	6.0
15	13.5	11.0	8.0	7.0	6.0	4.5	5.0	3.5	5.5	3.0	9.5	6.0
16	11.0	10.0	7.0	6.0	6.5	5.0	5.0	3.5	6.0	3.5	9.0	6.5
17	10.5	9.0	7.0	5.0	6.5	5.0	5.5	4.0	6.0	4.0	8.5	7.0
18	11.0	8.5	6.5	5.5	7.0	5.5	6.0	4.5	6.0	3.5	9.0	6.0
19	12.0	9.0	6.5	5.0	7.0	5.5	6.0	4.0	6.5	4.0	9.0	6.5
20	12.0	9.0	7.0	5.5	6.5	5.5	5.5	3.5	6.0	4.5	8.5	7.0
21	12.5	9.0	7.0	5.5	6.5	5.5	5.5	4.0	5.0	3.0	8.0	7.0
22	12.5	9.5	6.5	5.5	7.0	5.5	5.5	3.5	5.0	2.5	9.0	5.5
23	11.0	8.5	7.0	5.5	8.0	6.5	5.5	3.5	6.0	3.0	10.5	7.5
24	9.5	8.0	7.5	6.5	7.0	6.0	6.0	4.0	6.5	3.5	11.0	9.5
25	9.5	7.0	7.0	6.0	7.0	5.5	6.0	4.5	7.0	4.0	10.0	9.0
26	8.5	7.5	7.0	6.0	7.0	5.5	5.0	3.5	6.5	4.5	11.5	8.5
27	8.5	7.5	6.0	5.5	7.0	6.0	4.0	3.0	5.5	3.5	10.5	8.5
28	8.5	7.0	6.5	5.0	7.0	6.0	4.5	3.5	6.5	3.5	9.5	7.5
29	9.0	6.5	6.5	5.5	7.0	6.0	6.0	4.5	---	---	10.0	6.5
30	9.5	7.0	7.0	5.5	6.5	5.5	5.5	4.0	---	---	9.0	7.5
31	10.0	8.5	---	---	6.0	5.0	4.0	3.0	---	---	9.0	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	6.5	18.0	16.0	18.0	15.0	24.0	21.5	24.5	21.0	21.5	18.5
2	12.0	8.5	17.0	15.0	19.5	16.5	24.5	21.0	26.0	22.0	21.0	18.5
3	10.5	9.0	16.0	14.0	19.5	17.5	24.5	21.5	25.5	23.0	20.5	18.5
4	8.5	7.0	15.0	12.5	19.5	16.5	25.0	21.5	26.0	22.5	20.0	18.5
5	9.5	5.5	15.0	12.5	20.5	17.0	26.0	22.0	26.0	21.5	19.5	18.5
6	11.5	7.5	14.5	12.5	22.0	18.0	25.5	22.5	26.5	21.5	19.0	18.0
7	12.5	9.5	14.5	12.0	22.0	19.0	26.5	22.5	26.5	21.5	19.0	17.0
8	13.5	10.0	13.0	11.5	22.0	19.0	27.0	22.5	26.0	21.5	20.0	18.0
9	13.5	10.5	14.5	10.0	21.5	18.5	25.5	22.0	25.0	21.5	19.5	18.0
10	15.5	12.0	15.5	11.5	22.5	20.0	25.5	21.5	21.5	19.5	19.0	17.5
11	15.0	12.5	16.0	12.0	23.0	19.0	26.0	22.5	19.0	17.5	18.0	17.0
12	14.5	12.5	14.5	12.0	22.0	18.5	25.5	19.5	19.5	17.5	18.0	17.0
13	15.5	12.5	14.5	10.5	22.0	19.0	23.5	21.0	20.0	18.5	18.5	16.5
14	15.0	13.0	16.0	12.5	19.5	15.5	24.0	20.5	21.5	18.5	19.0	17.0
15	15.0	13.5	17.0	14.5	17.5	13.5	25.0	22.0	21.0	19.5	19.0	17.5
16	16.0	12.5	15.5	13.5	19.5	15.0	23.5	21.5	22.5	19.5	19.0	17.5
17	16.0	13.0	14.5	12.5	21.0	16.5	21.5	20.0	22.5	19.5	19.0	17.5
18	15.5	13.0	17.0	13.0	22.0	18.0	22.5	19.5	22.0	19.5	18.5	16.5
19	16.0	13.0	17.5	14.5	23.0	18.5	23.5	19.5	22.0	19.5	18.0	16.5
20	14.5	13.0	17.0	14.5	24.0	20.0	24.0	20.0	23.0	20.0	18.0	16.5
21	13.0	11.5	14.5	13.0	25.0	20.5	24.0	20.5	22.0	20.0	18.5	17.0
22	14.0	10.5	14.5	12.5	25.0	21.0	24.0	21.5	22.5	19.0	18.5	17.0
23	16.0	11.5	17.5	12.5	25.0	21.5	23.5	21.0	23.0	20.0	18.5	17.0
24	17.0	13.0	18.0	15.0	26.0	21.5	22.5	20.5	21.5	20.0	18.0	17.0
25	17.5	14.0	18.0	16.0	26.0	22.5	22.5	20.0	22.5	19.5	18.0	17.0
26	17.5	14.0	17.5	16.5	26.0	22.0	22.0	19.5	23.5	20.0	17.5	16.0
27	17.0	14.0	19.0	16.0	25.0	21.5	23.0	19.5	23.5	21.0	17.0	15.5
28	16.5	13.0	20.0	16.5	23.5	21.5	23.0	19.5	24.0	20.5	17.0	15.5
29	17.5	13.5	20.0	17.0	24.5	20.5	22.5	20.0	22.0	20.0	17.0	15.5
30	18.0	14.5	20.5	17.0	26.0	22.0	23.5	20.5	21.5	19.0	17.5	15.5
31	---	---	19.0	16.5	---	---	24.0	21.0	20.0	18.5	---	---

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 24,80		MAR 24,81		MAY 19,81		JUN 23,81		JUL 27,81		SEP 29,81	
TIME	1210		1400		1030		1300		1400		1200	
TOTAL CELLS/ML	28000		7500		1500		5200		3200		1100	
DIVERSITY: DIVISION	0.5		1.1		1.4		1.5		0.9		1.0	
.CLASS	0.5		1.1		1.4		1.5		0.9		1.0	
..ORDER	0.6		1.8		2.0		2.1		1.3		1.0	
...FAMILY	0.8		2.8		3.0		2.5		2.4		2.0	
....GENUS	0.8		2.9		3.2		2.7		2.6		2.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	180	3	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	*	0	--	-	--	-	--	-	--	-	43	4
....OOCYSTIS	--	-	--	-	--	-	100	2	130	4	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	200	4	--	-	170#	16
....SCENEDESMUS	*	0	420	6	210	14	2000#	39	620#	20	420#	38
....TETRASTRUM	--	-	--	-	--	-	--	-	100	3	--	-
..CLADOPHORALES												
...CLADOPHORACEAE												
....AEGAGROPILA	25000#	90	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	*	0	100	1	52	3	200	4	26	1	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	*	0	2400#	32	210	14	780#	15	260	8	--	-
....MELOSIRA	*	0	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	65	4	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	*	0	--	-	--	-	--	-	26	1	--	-
....COCCONEIS	*	0	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	*	0	100	1	--	-	--	-	26	1	--	-
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	--	-	26	1	--	-
....CYMBELLA	320	1	100	1	13	1	*	0	77	2	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	29	3
...DIATOMACEAE												
....DIATOMA	310	1	260	3	13	1	*	0	--	-	43	4
...FRAGILARIACEAE												
....FRAGILARIA	--	-	100	1	13	1	--	-	--	-	--	-
....HANNAEA	--	-	100	1	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	39	3	*	0	--	-	72	6
...GOMPHONEMATACEAE												
....GOMPHONEIS	*	0	--	-	--	-	--	-	--	-	--	-
....GOMPHONEMA	150	1	310	4	26	2	--	-	77	2	--	-
...NAVICULACEAE												
....NAVICULA	990	4	1300#	17	170	11	50	1	390	12	240#	22
...NITZSCHIACEAE												
....DENTICULA	*	0	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	320	1	420	6	430#	28	860#	17	1300#	43	86	8
...SURIRELLACEAE												
....SURIRELLA	*	0	310	4	52	3	--	-	52	2	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	26	2	50	1	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	26	2	76	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	*	0	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	260	1	1600#	21	180	12	550	11	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09152600 ORCHARD MESA DRAIN AT GRAND JUNCTION, CO

LOCATION.--Lat 39°02'49", long 108°34'17", in NE¼NE¼ sec.27, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 350 ft (110 m) upstream from mouth and 1.6 mi (2.6 km) south of city hall in Grand Junction.

DRAINAGE AREA.--3.70 mi² (9.58 km²).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,565 ft (1,391 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Orchard Mesa Canal imports water from the Colorado River into basin above station for irrigation. Flow is mostly waste water from canal and return flow from land irrigated under the canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years (water years 1974-81), 7.74 ft³/s (0.219 m³/s), 5,610 acre-ft/yr (6.92 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s (1.19 m³/s) Aug. 8, 1977, gage height, 4.94 ft (1.506 m); maximum gage height, 4.95 ft (1.509 m) May 6, 1973; minimum daily discharge, 0.41 ft³/s (0.012 m³/s) Mar. 23, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s (0.65 m³/s) at 1400 May 29, gage height, 4.76 ft (1.451 m); minimum daily, 0.41 ft³/s (0.012 m³/s) Mar. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	3.1	1.6	1.1	.85	.68	9.8	9.7	19	9.2	8.9	17
2	8.3	3.0	1.5	1.1	.90	.75	8.2	10	19	9.6	6.8	17
3	9.4	3.0	1.5	1.2	.90	.77	10	13	20	8.7	7.4	14
4	9.2	2.9	1.5	1.1	.90	.74	12	11	20	9.0	5.9	14
5	9.2	3.0	1.5	1.7	.90	.64	11	14	17	9.0	5.6	16
6	11	2.9	1.4	1.2	.90	.80	8.2	14	16	9.0	7.1	14
7	10	2.8	1.8	1.1	.90	.73	9.2	13	14	9.3	5.2	16
8	10	3.7	1.7	1.2	.80	.66	9.9	14	15	8.1	6.1	17
9	11	3.7	1.5	1.0	.80	.65	11	14	16	7.8	6.9	17
10	9.9	3.4	1.4	1.0	.87	.65	11	13	14	7.8	9.9	18
11	11	2.6	1.4	1.1	.80	.70	11	13	9.9	12	12	13
12	12	2.6	1.5	1.1	.83	.70	11	12	7.5	17	14	17
13	13	2.6	1.4	1.1	.80	.56	10	11	7.3	16	16	16
14	13	2.5	1.4	1.1	.58	.49	11	9.5	8.8	15	15	13
15	14	2.4	1.5	1.1	.74	.54	10	9.5	11	12	16	13
16	11	2.3	1.4	1.1	.73	.53	13	12	7.6	13	16	13
17	13	2.3	1.5	1.0	.75	.58	13	15	7.5	15	15	13
18	11	2.3	1.4	.98	.69	.48	11	11	8.0	16	13	12
19	11	2.1	1.4	1.0	.69	.48	12	8.9	6.8	14	16	12
20	11	2.0	1.4	1.0	.75	.49	11	11	6.3	15	16	11
21	10	2.0	1.4	1.0	.58	.45	11	12	6.4	13	16	10
22	9.0	1.9	1.4	.90	.84	.43	11	11	5.1	9.8	16	10
23	7.8	1.8	1.4	1.0	.63	.41	9.3	13	5.7	10	14	11
24	9.0	2.3	1.4	1.0	.65	1.2	9.0	13	4.8	9.7	15	12
25	5.5	1.7	1.4	.94	.69	5.3	10	12	4.6	12	15	12
26	3.7	1.6	1.3	1.0	.81	8.6	8.7	11	6.4	12	15	12
27	3.6	1.6	1.3	1.0	.69	5.1	8.1	12	6.2	12	15	11
28	3.2	1.6	1.2	1.0	.64	8.1	6.3	16	7.6	13	16	11
29	3.1	1.7	1.2	.98	---	6.8	6.6	21	7.7	11	16	12
30	3.1	1.7	1.2	.91	---	10	12	17	7.9	9.4	19	12
31	3.1	---	1.1	.90	---	8.8	---	19	---	7.9	19	---
TOTAL	277.8	73.1	44.0	32.91	21.61	67.81	305.3	395.6	313.1	352.3	394.8	411
MEAN	8.96	2.44	1.42	1.06	.77	2.19	10.2	12.8	10.4	11.4	12.7	13.7
MAX	14	3.7	1.8	1.7	.90	10	13	21	20	17	19	18
MIN	3.1	1.6	1.1	.90	.58	.41	6.3	8.9	4.6	7.8	5.2	10
AC-FT	551	145	87	65	43	135	606	785	621	699	783	815

CAL YR 1980 TOTAL 2809.65 MEAN 7.68 MAX 28 MIN .58 AC-FT 5570
WTR YR 1981 TOTAL 2689.33 MEAN 7.37 MAX 21 MIN .41 AC-FT 5330

09152650 LEACH CREEK AT DURHAM, CO

LOCATION.--Lat 39°05'27", long 108°36'25", in NW¼NW¼ sec.9, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 1401005, on left bank 40 ft (12 m) downstream from culvert on U.S. Highways 6 and 50, 0.5 mi (0.8 km) northwest of Durham, and 2.9 mi (4.7 km) northwest of city hall in Grand Junction.

DRAINAGE AREA.--24.8 mi² (64.2 km²).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years (water years 1974-81), 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 632 ft³/s (17.9 m³/s) July 18, 1974, gage height, 6.76 ft (2.060 m); minimum daily, 4.4 ft³/s (0.12 m³/s) Mar. 30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft³/s (3.68 m³/s) at 0300 Mar. 17, gage height, 3.11 ft (0.948 m); minimum daily, 4.8 ft³/s (0.14 ft³/s) Mar. 8,9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	35	9.7	7.6	6.0	4.9	28	39	55	46	38	55
2	30	37	9.4	7.6	5.8	5.2	19	43	51	44	40	50
3	32	42	9.6	7.4	5.6	5.1	21	70	54	39	36	49
4	32	50	9.7	7.3	5.7	5.1	20	78	54	37	38	47
5	32	60	9.6	8.4	5.6	5.0	20	66	47	38	35	54
6	32	30	9.6	7.4	5.6	6.1	18	64	44	34	38	57
7	32	14	10	7.3	5.6	5.1	15	60	41	40	38	52
8	35	12	9.4	7.3	5.5	4.8	16	61	39	48	34	51
9	35	11	8.9	7.2	5.7	4.8	13	59	35	42	35	50
10	37	11	19	7.1	5.6	4.9	13	53	33	44	37	50
11	36	11	45	6.8	5.7	4.9	17	55	35	48	42	50
12	39	11	27	6.8	5.3	5.2	17	52	34	46	41	50
13	39	11	26	6.8	5.3	5.0	16	48	34	50	41	50
14	42	10	26	6.7	5.3	5.1	17	48	37	53	40	48
15	58	10	26	6.7	5.4	5.0	20	49	38	49	39	49
16	43	10	23	6.4	5.0	12	22	56	36	47	38	49
17	40	10	15	6.5	5.2	67	24	56	35	54	37	54
18	39	10	11	6.4	5.1	62	24	53	36	55	38	51
19	37	11	8.5	6.4	5.1	38	26	50	37	52	40	43
20	33	10	8.1	6.4	5.1	25	25	52	38	51	41	42
21	30	10	8.0	6.2	4.9	20	27	53	40	48	42	42
22	27	10	8.0	6.0	4.9	19	27	47	38	43	46	43
23	25	9.9	8.1	6.1	5.0	15	26	44	37	46	45	42
24	26	13	7.7	6.1	5.1	14	29	43	35	49	45	39
25	29	9.8	7.6	6.1	4.9	16	30	42	34	44	46	40
26	32	9.7	7.7	6.0	5.0	18	27	38	34	47	44	41
27	31	9.6	7.8	6.7	4.9	32	27	38	37	49	41	41
28	29	9.6	7.7	6.2	4.9	26	32	42	43	45	41	39
29	33	9.6	7.6	6.3	---	21	38	45	49	44	43	36
30	35	9.8	7.6	6.1	---	22	39	39	46	41	53	35
31	35	---	7.7	6.1	---	23	---	50	---	37	48	---
TOTAL	1065	507.0	406.0	208.4	148.8	506.2	693	1593	1206	1410	1260	1399
MEAN	34.4	16.9	13.1	6.72	5.31	16.3	23.1	51.4	40.2	45.5	40.6	46.6
MAX	58	60	45	8.4	6.0	67	39	78	55	55	53	57
MIN	25	9.6	7.6	6.0	4.9	4.8	13	38	33	34	34	35
AC-FT	2110	1010	805	413	295	1000	1370	3160	2390	2800	2500	2770

CAL YR 1980 TOTAL 8801.5 MEAN 24.0 MAX 65 MIN 5.7 AC-FT 17460
WTR YR 1981 TOTAL 10402.4 MEAN 28.5 MAX 78 MIN 4.8 AC-FT 20630

09152900 ADOBE CREEK NEAR FRUITA, CO

LOCATION.--Lat 39°08'13", long 108°41'48", in SW¼SW¼ sec.22, T.1 N., R.2 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 50, 0.8 mi (1.3 km) upstream from mouth, and 2.4 mi (3.9 km) southeast of Fruita.

DRAINAGE AREA.--15.4 mi^2 (39.9 km^2).

PERIOD OF RECORD.--April 1973 to current year.

REVISED RECORDS.--WDR CO-77-2: 1973-76(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,520 ft (1,378 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--8 years, 21.5 ft^3/s (0.609 m^3/s), 15,580 acre-ft/yr (19.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft^3/s (5.75 m^3/s) May 28, 1981, gage height, 6.11 ft (1.862 m), from rating curve extended above 95 ft^3/s (2.7 m^3/s); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Apr. 2, 3, 1976, Mar. 18, 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 203 ft^3/s (5.75 m^3/s) at 2200 May 28, gage height, 6.11 ft (1.862 m); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Mar. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	22	3.6	2.8	2.4	1.9	15	25	39	36	42	46
2	40	24	3.4	2.8	2.4	2.1	14	27	41	35	41	43
3	39	28	3.6	2.9	2.4	2.1	13	29	42	38	38	41
4	40	32	3.7	2.9	2.4	2.0	14	22	44	37	33	40
5	43	36	3.7	3.1	2.4	1.9	16	25	42	36	30	43
6	44	15	3.7	2.8	2.4	2.0	18	30	39	34	29	44
7	42	5.5	3.6	2.8	2.4	1.9	22	31	38	33	31	42
8	41	4.4	3.4	2.8	2.4	1.7	23	21	39	36	32	41
9	45	4.2	3.5	2.7	2.5	1.8	23	21	41	37	36	40
10	43	4.2	3.4	2.6	2.3	1.8	22	28	40	45	38	37
11	41	4.2	3.5	2.7	2.2	1.9	22	27	35	56	41	36
12	46	4.0	9.1	2.8	2.0	1.8	21	29	33	51	47	39
13	47	4.0	14	2.8	2.0	1.7	21	29	33	46	51	40
14	49	4.0	14	2.7	2.1	1.7	22	29	38	47	48	43
15	58	3.8	14	2.8	2.1	1.5	23	33	39	46	42	42
16	45	3.8	12	2.7	2.1	1.5	22	37	38	44	40	42
17	41	3.8	5.8	2.7	2.1	1.5	23	40	37	44	36	45
18	39	3.8	3.4	2.7	2.0	1.3	22	39	36	45	37	38
19	39	4.0	3.2	2.6	2.0	1.3	22	37	34	45	36	36
20	34	3.8	3.2	2.6	2.1	5.5	23	38	34	42	34	35
21	32	3.8	3.2	2.5	2.0	12	23	42	38	37	35	39
22	28	3.8	3.2	2.5	2.0	13	22	43	38	34	36	42
23	23	3.8	3.1	2.6	2.0	15	22	38	40	38	33	44
24	22	4.8	2.9	2.6	2.1	15	22	36	42	35	36	46
25	24	3.8	3.1	2.6	2.0	15	25	37	41	43	40	44
26	26	3.6	3.0	2.5	2.0	15	22	36	37	44	41	37
27	23	3.6	2.9	2.4	1.9	15	23	42	38	38	43	33
28	23	3.6	2.9	2.5	1.9	15	24	62	44	38	39	33
29	20	3.6	2.8	2.6	---	14	24	52	37	44	37	33
30	21	3.6	2.8	2.6	---	15	25	45	36	44	42	33
31	21	---	2.9	2.5	---	15	---	44	---	43	40	---
TOTAL	1125	252.5	150.6	83.2	60.6	197.9	633	1074	1153	1271	1184	1197
MEAN	36.3	8.42	4.86	2.68	2.16	6.38	21.1	34.6	38.4	41.0	38.2	39.9
MAX	58	36	14	3.1	2.5	15	25	62	44	56	51	46
MIN	20	3.6	2.8	2.4	1.9	1.3	13	21	33	33	29	33
AC-FT	2230	501	299	165	120	393	1260	2130	2290	2520	2350	2370

CAL YR 1980 TOTAL 8070.3 MEAN 22.1 MAX 58 MIN 1.4 AC-FT 16010
WTR YR 1981 TOTAL 8381.8 MEAN 23.0 MAX 62 MIN 1.3 AC-FT 16630

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO DEC. 4, APR. 7 TO MAY 12.

09153290 REED WASH NEAR MACK, CO

LOCATION.--Lat 39°12'41", long 108°48'11", in SE¼SW¼ sec.27, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 250 ft (76 m) upstream from unnamed tributary, 0.4 mi (0.6 km) downstream from Peck and Beede Wash, and 3.5 mi (5.6 km) east of Mack.

DRAINAGE AREA.--15.7 mi^2 (40.7 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,373 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 50.5 ft^3/s (1.430 m^3/s), 36,590 acre-ft/yr (45.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 264 ft^3/s (7.48 m^3/s) July 24, 1979, gage height, 6.09 ft (1.856 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Jan. 31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 133 ft^3/s (3.77 m^3/s) at 0800 Aug. 30, gage height, 4.73 ft (1.442 m); minimum daily, 3.4 ft^3/s (0.096 m^3/s) Mar. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	59	9.8	7.0	4.8	3.7	54	50	104	100	90	87
2	56	60	9.2	7.0	4.7	3.8	53	61	99	101	91	78
3	65	60	9.8	7.0	4.7	3.8	52	42	101	100	87	94
4	66	60	11	6.7	4.6	3.7	54	63	93	102	75	75
5	64	41	11	6.5	4.6	3.6	56	67	96	103	81	96
6	69	15	8.4	6.3	4.6	3.7	56	82	89	100	78	91
7	63	14	7.4	6.0	4.7	3.7	56	56	85	94	82	94
8	65	14	7.5	5.8	4.6	3.6	56	40	91	92	80	94
9	60	14	7.7	5.9	4.7	3.5	55	58	89	94	76	86
10	60	13	7.7	6.0	4.6	3.4	48	55	86	101	77	90
11	60	13	15	5.8	4.5	3.4	43	50	79	97	75	84
12	59	13	49	5.7	4.4	3.4	44	49	90	92	87	82
13	83	12	48	5.7	4.4	3.5	41	65	94	101	89	83
14	75	12	46	5.4	4.4	3.5	47	85	84	94	102	86
15	68	12	46	5.4	4.4	3.6	44	83	94	102	87	84
16	70	12	45	5.4	4.3	3.6	47	97	92	104	92	85
17	79	11	36	5.5	4.2	3.6	46	100	83	101	90	87
18	93	11	11	5.5	4.1	26	44	108	82	104	86	88
19	109	11	10	5.5	4.1	68	47	105	82	102	80	91
20	92	11	8.8	5.5	4.0	60	44	97	80	97	94	96
21	68	11	8.7	4.9	4.0	58	43	97	75	104	79	89
22	67	11	8.0	4.9	4.0	57	45	101	80	95	96	82
23	64	11	7.4	4.9	4.0	56	45	101	78	86	85	84
24	62	12	7.4	5.0	4.0	58	47	110	74	93	78	78
25	62	10	7.4	5.0	3.9	58	49	111	76	90	87	78
26	62	10	7.5	5.0	3.7	54	43	106	76	90	75	80
27	66	9.9	7.5	4.9	3.7	53	47	109	82	99	100	84
28	63	9.9	7.0	4.9	3.7	53	51	109	84	96	92	86
29	63	9.9	6.9	4.9	---	56	52	94	90	101	98	94
30	63	10	6.9	4.9	---	56	50	92	96	108	108	88
31	61	---	7.0	4.8	---	56	---	105	---	99	104	---
TOTAL	2108	572.7	486.0	173.7	120.4	830.1	1459	2548	2604	3042	2701	2594
MEAN	68.0	19.1	15.7	5.60	4.30	26.8	48.6	82.2	86.8	98.1	87.1	86.5
MAX	109	60	49	7.0	4.8	68	56	111	104	108	108	96
MIN	51	9.9	6.9	4.8	3.7	3.4	41	40	74	86	75	75
AC-FT	4180	1140	964	345	239	1650	2890	5050	5170	6030	5360	5150

CAL YR 1980 TOTAL 17606.4 MEAN 48.1 MAX 150 MIN 4.0 AC-FT 34920
WTR YR 1981 TOTAL 19238.9 MEAN 52.7 MAX 111 MIN 3.4 AC-FT 38160

NOTE.--NO GAGE-HEIGHT RECORD JAN. 14 TO MAR. 11.

09153300 REED WASH NEAR LOMA, CO

LOCATION.--Lat 39°11'01", long 108°47'12", in NE¼SW¼ sec.2, T.1 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 40 ft (12 m) upstream from bridge on U.S. Highways 6 and 50, 1.6 mi (2.6 km) upstream from mouth, and 1.7 mi (2.7 km) southeast of Loma.

DRAINAGE AREA.--29.3 mi^2 (75.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,470 ft (1,362 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--8 years, 96.9 ft^3/s (2.744 m^3/s), 70,200 acre-ft/yr (86.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 297 ft^3/s (8.41 m^3/s) July 21, 1973, gage height, 6.48 ft (1.975 m); minimum daily, 6.1 ft^3/s (0.17 m^3/s) Feb. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 264 ft^3/s (7.48 m^3/s) at 0500 Oct. 15, gage height, 5.24 ft (1.597 m); maximum gage height, 5.34 ft (1.628 m) at 0900 Aug. 30, minimum daily discharge, 6.5 ft^3/s (0.18 m^3/s) Mar. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	128	18	13	9.8	7.2	99	140	180	185	180	227
2	176	129	18	13	9.4	7.4	92	148	177	180	180	224
3	185	130	18	12	9.4	7.2	93	193	180	182	184	211
4	182	127	18	12	9.4	7.0	95	201	171	185	164	211
5	189	92	17	13	9.4	7.0	96	193	176	188	174	209
6	196	32	17	12	9.5	7.2	99	190	165	184	172	223
7	185	29	17	12	9.3	7.1	111	172	162	174	169	227
8	196	29	16	12	9.2	6.7	115	188	168	167	167	217
9	204	27	15	12	9.5	6.6	113	185	163	173	171	214
10	198	26	15	12	9.1	6.5	112	169	149	178	170	210
11	208	26	27	12	8.9	6.5	111	172	141	185	180	186
12	218	25	102	12	8.6	6.5	120	158	150	176	195	187
13	232	25	101	11	8.6	6.6	116	157	154	185	208	185
14	234	23	102	11	8.6	6.7	120	158	147	178	224	190
15	238	22	105	11	8.6	6.6	134	155	156	187	218	193
16	236	22	106	11	8.5	6.7	136	172	156	192	213	192
17	213	21	88	11	8.4	6.9	136	172	146	185	214	192
18	210	21	20	11	8.2	46	128	183	143	196	219	184
19	215	21	15	11	8.0	123	134	177	143	195	221	184
20	196	20	15	11	8.1	106	139	164	141	202	203	196
21	152	19	14	10	7.7	105	122	172	135	205	204	192
22	147	19	14	10	7.7	103	122	174	141	193	209	185
23	144	19	14	10	7.8	103	122	179	138	179	207	187
24	144	22	14	11	7.8	106	134	183	134	187	213	174
25	149	20	14	10	7.6	104	141	182	131	183	212	172
26	148	20	13	10	7.4	95	136	176	135	187	200	175
27	148	20	13	10	7.2	94	139	174	144	196	206	180
28	143	19	13	10	7.2	99	145	184	149	197	210	177
29	140	19	13	10	---	102	152	169	168	196	203	177
30	140	19	13	10	---	103	153	169	172	200	237	178
31	134	---	13	10	---	105	---	178	---	194	237	---
TOTAL	5675	1171	998	346	238.9	1510.4	3665	5387	4615	5794	6164	5859
MEAN	183	39.0	32.2	11.2	8.53	48.7	122	174	154	187	199	195
MAX	238	130	106	13	9.8	123	153	201	180	205	237	227
MIN	134	19	13	10	7.2	6.5	92	140	131	167	164	172
AC-FT	11260	2320	1980	686	474	3000	7270	10690	9150	11490	12230	11620

CAL YR 1980 TOTAL 38000.8 MEAN 104 MAX 238 MIN 9.3 AC-FT 75370
WTR YR 1981 TOTAL 41423.3 MEAN 113 MAX 238 MIN 6.5 AC-FT 82160

09153300 REED WASH NEAR LOMA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 10,500 micromhos Jan. 21, 22, 1974; minimum, 680 micromhos May 27, 1979.
WATER TEMPERATURES: Maximum, 28.0°C June 9, July 9, 10, 1973; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,190 micromhos March 18; minimum, 1,110 micromhos Aug. 29.
WATER TEMPERATURES: Maximum, 25.0°C June 26; minimum, 0.5°C Feb. 11.

WATER-QUALITY DATA, WATER YEAR 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT								
08...	0830	200	2150	--	7.5	12.0	9.8	650
MAR								
11...	1330	6.6	5200	4980	8.0	8.0	10.2	2400
APR								
08...	1030	119	1640	1640	8.3	9.5	10.4	450
AUG								
12...	1000	217	2100	1990	7.6	17.0	7.4	720

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
08...	150	68	190	3.2	7.0	200	600	200	.4
MAR									
11...	500	280	430	3.8	11	160	2700	270	.2
APR									
08...	110	42	190	3.9	5.1	170	330	230	.4
AUG									
12...	182	64	170	3.0	6.9	180	590	210	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT								
08...	9.3	1350	1.8	729	2.0	.020	20	20
MAR								
11...	7.5	4360	5.9	78.5	15	.010	160	130
APR								
08...	8.9	1020	1.3	328	1.1	.080	40	10
AUG								
12...	10	1350	1.8	791	1.7	.060	43	24

09153300 REED WASH NEAR LOMA, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	3410	4400	4220	4070	4640	1900	1620	1400	1760	1910	1240
2	2030	3520	4330	4220	4080	4740	1890	1630	1330	1770	1930	1290
3	2050	3640	4270	4240	4080	4890	1870	1620	1290	1780	1930	1360
4	2040	3750	4200	4250	4060	4980	1830	1590	1280	1790	1930	1440
5	2040	3960	4140	4240	4040	4980	1790	1600	1290	1800	1940	1540
6	2040	4280	4060	4270	4000	4980	1750	1600	1290	1810	1930	1600
7	2050	4470	3990	4300	3960	5000	1720	1600	1300	1820	1940	1660
8	2060	4510	3950	4320	3960	5100	1700	1620	1300	1800	1950	1750
9	2110	4530	4000	4280	3910	5000	1670	1620	1270	1770	1950	1820
10	2120	4550	4040	4260	3960	5100	1680	1610	1360	1780	1950	1880
11	2080	4570	3880	4260	3960	5090	1680	1630	1390	1790	1950	1670
12	2090	4590	1860	4240	3870	5110	1610	1640	1330	1790	1980	1470
13	2100	4600	1860	4240	3790	5130	1580	1650	1330	1810	1910	1490
14	2100	4620	1920	4230	3730	5140	1560	1680	1350	1820	1830	1500
15	2120	4650	2010	4220	3730	5140	1520	1710	1330	1830	1800	1540
16	2120	4680	2070	4210	3750	5150	1470	1680	1390	1840	1800	1550
17	2140	4690	2180	4190	3790	5160	1460	1610	1460	1860	1810	1580
18	2150	4720	3080	4190	3830	4410	1480	1590	1520	1860	1790	1600
19	2170	4750	3730	4180	3910	2380	1470	1580	1580	1870	1750	1630
20	2170	4770	3880	4180	4020	2190	1500	1630	1610	1880	1760	1640
21	2180	4790	3960	4170	4100	2110	1530	1620	1650	1880	1760	1660
22	2310	4810	4030	4160	4160	2050	1560	1600	1680	1890	1740	1690
23	2420	4840	4080	4150	4210	2020	1590	1610	1680	1900	1750	1700
24	2520	4820	4150	4150	4270	1990	1600	1610	1710	1900	1760	1740
25	2600	4820	4150	4150	4310	1980	1610	1580	1700	1880	1760	1750
26	2710	4740	4150	4130	4350	1970	1610	1570	1680	1900	1760	1780
27	2810	4670	4160	4120	4430	1950	1630	1580	1700	1900	1770	1800
28	2930	4600	4160	4110	4540	1940	1640	1570	1650	1900	1550	1820
29	3040	4530	4170	4090	---	1950	1630	1550	1740	1910	1260	1850
30	3160	4460	4190	4090	---	1930	1620	1510	1750	1910	1180	1870
31	3280	---	4200	4080	---	1910	---	1460	---	1910	1190	---

09153300 REED WASH NEAR LOMA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	11.5	8.5	6.5	7.5	5.5	5.5	3.0	6.0	3.5	8.0	5.0
2	15.5	11.0	8.5	6.5	7.0	5.0	5.5	3.5	5.0	2.0	6.5	5.0
3	15.5	11.0	9.0	6.5	8.5	6.5	6.0	4.0	4.5	1.0	9.5	5.0
4	15.0	11.0	9.0	7.0	8.5	6.0	6.5	4.5	4.5	1.0	---	---
5	15.0	10.5	9.5	7.0	8.5	7.5	6.5	5.5	5.0	1.0	---	---
6	14.5	10.5	10.5	8.0	8.5	7.0	6.5	4.5	6.0	1.5	---	---
7	---	---	10.5	8.5	8.5	7.0	5.5	3.5	5.0	1.5	---	---
8	---	---	12.0	8.0	8.0	6.5	5.5	3.0	4.5	1.0	---	---
9	16.5	13.0	10.5	8.0	7.5	5.5	5.0	2.5	5.0	3.0	---	---
10	16.5	13.0	10.0	7.5	6.0	4.0	5.5	2.5	5.5	2.0	---	---
11	---	---	10.0	7.5	6.0	2.5	6.5	2.5	2.5	.5	---	---
12	---	---	11.5	9.5	3.0	1.5	5.0	2.5	6.0	1.5	10.0	6.5
13	---	---	11.0	10.0	3.0	1.5	4.5	2.0	6.0	1.5	9.0	5.0
14	---	---	9.5	8.0	2.5	1.0	4.5	1.5	7.0	2.5	10.0	5.0
15	---	---	16.5	6.0	2.5	1.0	5.0	2.5	7.5	4.0	11.0	5.0
16	---	---	7.0	5.0	3.0	1.5	5.5	2.5	7.5	3.5	9.5	5.0
17	---	---	6.5	4.5	3.5	2.0	7.0	4.5	7.5	4.0	10.0	6.0
18	---	---	16.0	4.0	5.0	2.5	6.0	3.0	8.0	4.0	10.5	5.5
19	---	---	6.5	4.0	6.0	3.5	5.5	2.5	8.0	4.0	9.0	7.0
20	---	---	7.0	4.5	6.0	4.0	5.5	2.0	7.0	5.5	9.0	8.0
21	---	---	6.5	4.0	6.0	4.0	5.5	2.0	7.0	3.0	8.0	7.0
22	11.5	9.0	7.0	4.5	7.0	5.0	5.5	2.0	7.0	2.0	9.5	6.0
23	10.5	8.0	8.0	6.0	8.0	6.0	5.0	1.5	7.5	2.5	10.0	7.0
24	9.5	7.5	8.0	7.0	6.5	4.5	6.0	2.5	8.5	3.0	11.0	9.0
25	9.0	7.0	7.5	5.5	7.0	5.0	5.5	3.0	8.0	3.5	11.5	8.5
26	8.5	7.0	7.5	5.5	6.5	4.5	4.0	1.5	8.0	5.0	11.5	8.5
27	9.0	7.5	7.0	4.5	6.5	4.0	4.0	1.5	8.5	4.0	10.0	8.5
28	8.5	6.0	7.0	5.0	7.0	5.0	5.5	3.5	8.5	3.5	9.5	8.0
29	8.0	6.0	7.0	5.0	6.5	4.0	7.0	4.0	---	---	11.0	7.5
30	8.5	6.0	7.5	6.0	5.5	3.0	6.0	5.5	---	---	9.0	7.5
31	8.5	6.0	---	---	5.5	3.0	5.5	4.0	---	---	10.0	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	7.0	20.0	13.5	20.5	15.0	21.0	19.5	23.5	19.5	20.0	16.5
2	10.5	7.0	18.0	15.0	19.5	15.5	23.0	18.0	24.0	18.5	20.5	16.5
3	9.5	8.0	17.0	14.5	19.0	15.5	23.0	18.0	24.0	18.5	20.5	17.5
4	10.0	7.0	18.0	12.0	20.5	15.5	23.5	18.0	23.5	18.5	20.5	16.5
5	10.5	5.5	16.5	12.0	21.0	15.0	24.0	18.0	23.5	18.0	19.0	17.0
6	11.5	6.0	17.5	13.0	21.5	16.0	24.0	18.0	23.5	18.0	17.5	16.5
7	11.5	7.5	16.0	10.5	21.5	16.5	24.5	19.0	23.5	18.0	18.5	16.0
8	13.0	8.5	12.5	10.5	21.5	16.5	24.5	19.5	23.5	18.0	19.5	16.0
9	13.5	8.5	15.5	9.5	21.5	16.5	24.0	20.0	23.0	18.5	19.5	16.5
10	15.5	9.5	16.5	10.5	22.0	16.5	24.5	19.0	21.0	19.0	18.0	16.5
11	15.0	9.5	16.0	12.0	22.0	17.0	24.0	20.0	18.5	17.5	19.0	16.0
12	14.0	9.5	16.0	13.5	21.5	16.0	23.5	20.0	19.5	16.5	19.0	15.0
13	16.0	10.0	16.5	10.5	20.5	15.5	23.0	20.5	21.0	16.5	---	---
14	15.5	10.0	17.5	11.5	18.5	13.5	24.5	20.0	21.5	17.0	---	---
15	16.5	12.5	16.0	13.0	19.5	12.0	24.0	20.0	20.5	18.0	---	---
16	17.5	11.5	15.0	13.0	20.0	12.5	22.0	20.0	21.5	17.5	---	---
17	17.5	12.5	15.0	12.0	20.5	13.5	22.5	19.0	22.0	17.5	---	---
18	16.5	12.5	17.5	12.0	21.0	14.0	23.5	19.0	21.5	17.0	---	---
19	15.0	12.5	17.0	13.0	21.5	15.0	23.5	19.0	22.0	17.5	---	---
20	16.0	10.5	15.5	13.5	22.0	16.0	23.5	18.0	22.0	17.5	---	---
21	15.0	9.5	15.5	11.5	23.0	16.0	23.5	18.0	20.0	17.5	---	---
22	16.5	10.0	15.5	12.5	23.5	16.5	24.0	19.0	21.0	18.0	---	---
23	18.0	10.0	18.0	12.5	23.5	17.5	23.5	19.0	22.0	17.0	---	---
24	18.5	11.0	18.5	13.0	24.0	17.0	23.5	19.0	21.5	18.0	---	---
25	18.5	12.0	18.0	15.0	24.5	18.0	23.0	19.0	22.0	18.0	---	---
26	18.5	12.0	18.0	15.5	25.0	18.5	22.5	18.5	21.5	17.5	---	---
27	17.0	12.5	19.5	15.5	24.0	18.5	23.0	17.5	21.5	18.5	---	---
28	19.0	12.0	20.0	16.5	24.0	19.0	22.5	17.5	21.5	17.0	---	---
29	19.5	12.5	19.0	15.5	24.0	18.0	23.0	18.0	21.5	18.0	---	---
30	19.5	13.0	21.0	16.0	24.0	18.0	23.0	18.5	20.0	17.5	---	---
31	---	---	20.0	17.0	---	---	23.0	18.5	20.5	17.0	---	---

09153330 WEST SALT CREEK NEAR CARBONERA, CO

LOCATION.--Lat 39°23'47", long 108°58'51", in NW¼SW¼ sec.3, T.8 S., R.104 W., Garfield County, Hydrologic Unit 14010005, on right bank 4.5 mi (7.2 km) south of Carbonera, 32 mi (51 km) northwest of Grand Junction.

DRAINAGE AREA.--95.6 mi² (247.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,082 ft (1,549 m) from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, May 28 to June 10, Aug. 12, 13, and Sept. 14, 15, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 871 ft³/s (24.7 m³/s) Aug. 31, 1981, result of indirect determination of peak flow, gage height, 8.00 ft (2.438 m), from highwater mark; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s (0.57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 15	0600	24	0.68	2.60	0.792	Aug. 30	0400	51	1.44	3.22	0.981
Nov. 13	1200	23	0.65	2.57	0.783	Aug. 31	2030	*871	24.7	8.00a	2.438
May 29	unknown	32	0.91	2.80a	0.853	Sept. 10	0800	34	0.96	2.86	0.872
July 23	1900	41	1.16	3.02	0.920	Sept. 11	0300	33	0.93	2.83	0.863
Aug. 12	unknown	104	2.95	4.00a	1.219						

No flow most of year.
a-Outside highwater mark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.2
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
13	.00	2.1	.00	.00	.00	.00	.00	.00	.00	.55	.84	.00
14	.50	.02	.00	.00	.00	.00	.00	.00	.00	.00	.77	.10
15	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
16	5.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
17	1.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.38	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.43	.00	.09	.00
28	.00	.00	.00	.00	.00	.00	.00	.10	1.0	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	1.3	.14	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.25	.00	.00	6.7	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	78	---
TOTAL	17.98	2.12	.00	.00	.00	.00	.00	1.65	1.57	4.01	94.52	30.70
MEAN	.58	.071	.000	.000	.000	.000	.000	.053	.052	.13	3.05	1.02
MAX	10	2.1	.00	.00	.00	.00	.00	1.3	1.0	3.0	78	14
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	36	4.2	.00	.00	.00	.00	.00	3.3	3.1	8.0	187	61

CAL YR 1980 TOTAL 179.78 MEAN .49 MAX 15 MIN .00 AC-FT 357
WTR YR 1981 TOTAL 152.55 MEAN .42 MAX 78 MIN .00 AC-FT 303

09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April to September 1981 (discontinued).
WATER TEMPERATURE: April to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1981. Pumping sampler since June 1979.

REMARKS.--No flow most of year. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR APRIL TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum, 9,980 micromhos July 18; minimum, 180 micromhos May 28.
WATER TEMPERATURE: Maximum, 35.5°C June 27; minimum, 10.5°C September 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
JUL								
14...	1245	.01	2200	2480	--	32.0	--	1500
23...	1630	13	--	3740	--	--	--	2000
AUG								
13...	1030	.03	2000	2260	--	18.5	--	820
14...	1000	.64	1700	1690	7.9	19.0	7.6	610
26...	1600	15	--	1460	--	--	--	630
26...	1610	15	--	1570	--	--	--	660
26...	1620	15	--	1820	--	--	--	810
30...	0415	1.6	--	1360	--	--	--	570
30...	0430	1.6	--	1400	--	--	--	600
31...	0010	11	--	1500	--	--	--	680
31...	0200	9.0	--	1580	--	--	--	730
31...	0300	8.5	--	1560	--	--	--	680
SEP								
11...	0215	27	--	2030	--	--	--	980
11...	0245	15	--	1990	--	--	--	910
14...	1040	.10	2450	2930	--	15.5	--	910

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JUL									
14...	290	190	91	1.0	17	58	1500	7.5	.4
23...	500	190	270	2.6	76	120	2400	27	.4
AUG									
13...	230	60	200	3.0	13	91	1200	14	.3
14...	170	46	200	3.5	9.8	100	890	10	.3
26...	167	51	110	2.1	12	200	630	26	.3
26...	176	54	120	2.2	11	210	690	27	.3
26...	215	67	140	2.3	14	230	860	36	.3
30...	158	43	87	1.7	10	120	640	13	.3
30...	169	44	82	1.5	11	120	650	14	.3
31...	190	50	87	1.5	12	130	700	13	.2
31...	201	55	96	1.7	13	140	770	13	.3
31...	185	53	110	2.0	12	170	730	14	.3
SEP									
11...	230	98	120	1.7	15	110	1200	23	.3
11...	200	100	130	1.9	15	100	1000	9.5	.3
14...	290	99	360	5.2	10	120	1600	16	.3

09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL								
14...	8.4	2150	2.9	.06	2.1	.030	230	50
23...	14	3550	4.8	125	.69	<.010	30	100
AUG								
13...	13	1800	2.5	.15	4.1	<.010	120	40
14...	12	1400	1.9	2.4	.28	.010	50	10
26...	19	1150	1.6	45.0	3.4	.040	730	860
26...	17	1230	1.7	48.2	.79	.030	250	900
26...	18	1490	2.0	58.3	.31	.040	610	1200
30...	11	1040	1.4	4.5	.75	.030	66	500
30...	11	1060	1.4	4.6	.77	.040	41	530
31...	12	1150	1.6	34.2	.69	.040	150	670
31...	13	1250	1.7	30.4	.63	.040	430	970
31...	14	1230	1.7	28.2	.58	.040	880	1000
SEP								
11...	9.5	1770	2.4	129	1.1	.020	40	510
11...	9.7	1530	2.1	62.0	1.4	.010	50	1200
14...	8.3	2370	3.2	.64	.40	.040	140	10

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG				
12...	1800	104	296000	83100
26...	1605	14	248000	9710
30...	0400	51	153000	21100
31...	0025	10	191000	5160
31...	0105	9.5	209000	5360
31...	0215	9.0	258000	6270
AUG				
31...	0315	8.5	320000	7340
SEP				
11...	0200	33	159000	14200
11...	0230	21	142000	8050
11...	0300	10	140000	3780

09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	---	---	---	1060
2								---	---	---	---	1000
3								---	---	3070	---	---
4								---	---	---	---	---
5								---	---	---	---	2200
6								---	---	---	---	---
7								---	---	---	---	---
8								---	---	---	---	---
9								---	---	---	---	2300
10								---	---	---	---	2070
11								---	---	---	---	2230
12								---	---	---	1240	2840
13								---	---	1530	1610	---
14								---	---	2100	1680	2590
15								---	---	---	2040	1810
16								---	---	---	2700	---
17								---	---	6840	---	---
18								---	---	---	---	---
19								---	---	---	---	---
20								---	---	---	---	---
21								---	---	---	---	---
22								---	---	---	---	---
23								---	---	4880	---	---
24								---	---	5250	---	---
25								---	---	---	---	---
26								---	240	---	1570	---
27								---	1190	---	1180	---
28								200	---	---	---	---
29								2000	---	---	---	---
30								2280	---	---	920	---
31								---	---	---	897	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	---	---	---	---	---	---	28.0	11.0
2			---	---	---	---	---	---	---	---	32.0	12.5
3			---	---	---	---	24.0	22.0	---	---	---	---
4			---	---	---	---	---	---	---	---	---	---
5			---	---	---	---	---	---	---	---	19.0	17.0
6			---	---	---	---	---	---	---	---	---	---
7			---	---	---	---	---	---	---	---	---	---
8			---	---	---	---	---	---	---	---	---	---
9			---	---	---	---	---	---	---	---	16.5	14.0
10			---	---	---	---	---	---	---	---	26.0	10.5
11			---	---	---	---	---	---	---	---	28.0	13.0
12			---	---	---	---	---	---	21.0	19.5	14.5	11.0
13			---	---	---	---	24.0	23.5	25.5	17.5	---	---
14			---	---	---	---	31.0	23.0	24.0	16.5	23.5	15.0
15			---	---	---	---	---	---	25.0	16.5	14.5	13.5
16			---	---	---	---	---	---	18.0	16.5	---	---
17			---	---	---	---	---	---	---	---	---	---
18			---	---	---	---	27.5	18.5	---	---	---	---
19			---	---	---	---	---	---	---	---	---	---
20			---	---	---	---	---	---	---	---	---	---
21			---	---	---	---	---	---	---	---	---	---
22			---	---	---	---	---	---	---	---	---	---
23			---	---	---	---	25.5	23.5	---	---	---	---
24			---	---	---	---	23.0	20.5	---	---	---	---
25			---	---	---	---	---	---	---	---	---	---
26			---	---	21.5	21.5	---	---	23.5	20.0	---	---
27			---	---	35.5	16.5	---	---	19.5	19.0	---	---
28			16.0	14.5	---	---	---	---	---	---	---	---
29			25.5	12.0	---	---	---	---	---	---	---	---
30			25.5	12.5	---	---	---	---	24.0	16.5	---	---
31			---	---	---	---	---	---	26.5	11.0	---	---

09153400 WEST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°18'31", long 108°58'59", in SW¼NE¼ sec.3, T.9 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank at upstream side of bridge, 0.8 mi (1.3 km) downstream from Prairie Canyon, and 8.7 mi (14.0 km) northwest of Mack.

DRAINAGE AREA.--168 mi^2 (435 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

REVISED RECORDS.--WDR CO-75-2: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion above station. A few stock ponds on tributaries above station.

AVERAGE DISCHARGE.--8 years, 0.48 ft^3/s (0.014 m^3/s), 348 acre-ft/yr (429,000 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft^3/s (39.6 m^3/s) Aug. 8, 1974, gage height, 7.0 ft (2.13 m), from floodmarks, from rating curve extended above 110 ft^3/s (3.1 m^3/s); no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft^3/s (2.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 15	0730	85	2.41	2.37	0.722	July 17	1630	515	14.6	4.66	1.420
June 28	1830	110	3.12	2.62	0.799	Aug. 26	1800	173	4.90	3.05	0.930
July 9	2030	100	2.83	2.52	0.768	Aug. 31	unknown	*681	19.3	5.21	1.588

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	39
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.10	.08	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.10	.12	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15
6	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.3	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.37
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	1.0	.13
14	.14	.00	.00	.00	.00	.00	.00	.00	.00	.10	7.7	.13
15	34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.02
16	8.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
17	.19	.00	.00	.00	.00	.00	.00	.00	.00	25	.11	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.02	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.77	.00
28	.00	.00	.00	.00	.00	.00	.00	.55	20	.00	.02	.00
29	.00	.00	.00	.00	---	.00	.00	.20	5.5	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.01	.00	.00	3.5	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	55	---
TOTAL	42.43	.00	.20	.00	.00	.00	.00	.76	25.70	40.40	71.31	39.80
MEAN	1.37	.000	.006	.000	.000	.000	.000	.025	.86	1.30	2.30	1.33
MAX	34	.00	.10	.00	.00	.00	.00	.55	20	25	55	39
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	84	.00	.4	.00	.00	.00	.00	1.5	51	80	141	79

CAL YR 1980 TOTAL 257.28 MEAN .70 MAX 64 MIN .00 AC-FT 510
WTR YR 1981 TOTAL 220.60 MEAN .60 MAX 55 MIN .00 AC-FT 438

NOTE.--NO GAGE-HEIGHT RECORD AUG. 13 TO SEPT. 4.

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1973 to current year.
WATER TEMPERATURES: September 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1973; pumping sampler since June 1979.

REMARKS.--No flow during most of period of record. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 12,800 micromhos Sept. 14, 1981; minimum, 240 micromhos July 3, 1981.
WATER TEMPERATURE: Maximum, 34.0°C July 22, 1981; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--.
SPECIFIC CONDUCTANCE: Maximum, 12,800 micromhos Sept. 14; minimum recorded, 240 micromhos July 3.
WATER TEMPERATURE: Maximum, 34.0°C July 22; minimum, 5.0°C Oct. 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
JUL								
17...	1500	395	--	2070	--	--	--	1300
17...	1600	98	--	9910	--	--	--	5100
AUG								
13...	1300	.21	4700	7070	--	26.5	--	2600
14...	1140	.32	2400	--	8.1	25.0	6.6	1000
SEP								
14...	1220	.03	13000	11200	--	25.5	--	5100

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JUL									
17...	440	57	72	.9	12	130	1100	12	.4
17...	510	920	2000	12	27	160	6900	150	.4
AUG									
13...	530	320	1100	9.3	22	210	4500	130	.4
14...	260	85	290	4.0	14	180	1400	39	.2
SEP									
14...	460	970	1600	9.7	21	220	8200	140	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL								
17...	13	1790	2.4	1910	.35	.020	100	80
17...	9.5	10600	14.4	2800	.95	.020	150	1400
AUG								
13...	13	6750	9.2	3.8	.66	<.010	80	1300
14...	18	2220	3.0	1.9	.31	<.010	340	1200
SEP								
14...	7.8	11500	15.6	.93	1.6	.020	120	80

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUL					AUG				
17...	1500	395	130000	139000	12...	1500	.50	318000	429

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---							---	---	---	---	8390
2	---							---	---	---	---	---
3	---							---	5790	240	---	---
4	---							---	5300	7760	---	---
5	---							---	---	---	---	2860
6	---							---	---	---	---	---
7	---							---	---	---	---	---
8	---							---	---	---	---	---
9	---							---	---	6700	---	---
10	---							---	---	6760	---	---
11	---							---	---	---	---	10400
12	---							---	---	---	1460	10800
13	---							---	---	---	4540	11400
14	1600							---	---	---	3250	10600
15	1750							---	---	---	2400	8280
16	1060							---	---	---	---	---
17	578							---	---	2170	7800	---
18	---							---	---	1710	4070	---
19	---							---	---	1600	---	---
20	---							---	---	---	---	---
21	---							---	---	1750	---	---
22	---							---	---	1440	---	---
23	---							---	---	1200	---	---
24	---							---	---	1340	---	---
25	---							---	---	1560	---	---
26	---							---	---	---	---	---
27	---							---	---	---	9900	---
28	---							2200	7000	---	8400	---
29	---							3130	---	---	---	---
30	---							3870	---	---	8500	---
31	---							---	---	---	8490	---
MEAN	1250							3070	6030	2850	5880	8960

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---										
2	---	---										
3	---	---										
4	---	---										
5	---	---										
6	---	---										
7	---	---										
8	---	---										
9	---	---										
10	---	---										
11	---	---										
12	---	---										
13	---	---										
14	11.0	11.0										
15	10.5	6.0										
16	11.5	6.0										
17	15.5	5.0										
18	---	---										
19	---	---										
20	---	---										
21	---	---										
22	---	---										
23	---	---										
24	---	---										
25	---	---										
26	---	---										
27	---	---										
28	---	---										
29	---	---										
30	---	---										
31	---	---										

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	---	---	---	---	---	---	27.0	10.0
2			---	---	---	---	---	---	---	---	---	---
3			---	---	25.0	17.0	18.0	18.0	---	---	---	---
4			---	---	27.0	12.5	26.5	14.0	---	---	---	---
5			---	---	---	---	---	---	---	---	18.0	16.0
6			---	---	---	---	---	---	---	---	---	---
7			---	---	---	---	---	---	---	---	---	---
8			---	---	---	---	---	---	---	---	---	---
9			---	---	---	---	22.0	20.0	---	---	---	---
10			---	---	---	---	27.0	17.5	---	---	---	---
11			---	---	---	---	---	---	---	---	26.5	13.0
12			---	---	---	---	---	---	17.5	17.0	25.0	12.0
13			---	---	---	---	---	---	28.0	14.5	27.5	14.0
14			---	---	---	---	---	---	30.0	14.0	28.0	15.5
15			---	---	---	---	---	---	19.5	16.0	26.0	12.0
16			---	---	---	---	---	---	---	---	---	---
17			---	---	---	---	26.0	19.0	26.5	18.0	---	---
18			---	---	---	---	30.0	17.0	18.0	14.5	---	---
19			---	---	---	---	20.5	16.5	---	---	---	---
20			---	---	---	---	---	---	---	---	---	---
21			---	---	---	---	29.0	19.0	---	---	---	---
22			---	---	---	---	34.0	17.5	---	---	---	---
23			---	---	---	---	24.0	18.0	---	---	---	---
24			---	---	---	---	30.0	17.5	---	---	---	---
25			---	---	---	---	21.0	17.5	---	---	---	---
26			---	---	---	---	---	---	---	---	---	---
27			---	---	---	---	---	---	21.0	19.0	---	---
28			15.0	15.0	28.0	15.5	---	---	22.0	16.0	---	---
29			22.5	11.5	---	---	---	---	---	---	---	---
30			26.0	11.0	---	---	---	---	23.5	17.0	---	---
31			---	---	---	---	---	---	26.5	10.5	---	---

09160000 BADGER WASH OBSERVATION RESERVOIR 4-A NEAR MACK, CO

LOCATION.--Lat 39°19'52", long 108°55'49", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Prairie Dog Reservoir and 8 mi (12.9 m) northwest of Mack.

DRAINAGE AREA.--0.022 mi² (0.057 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, published in WDR CO 1971. May 1976 to September 1981 (discontinued).

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,940 ft (1,506 m), from topographic map. September 1954, to September 1973, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

AVERAGE DISCHARGE.--5 years, 0.00 ft³/s (0.0 m³/s), 0.00 acre-ft/yr (0.00 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) July 12, 1965; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.9 ft³/s (0.082 m³/s) at 1550, Sept. 5, gage height 0.62 ft (0.189 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

SEPT. 5 0.02

CAL YR 1980	TOTAL 0.00	MEAN .000	MAX .00	MIN .00	AC-FT .00
WTR YR 1981	TOTAL 0.02	MEAN .000	MAX .02	MIN .00	AC-FT .04

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO FEB. 19.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1981 (discontinued).

REMARKS.--Flow occurred from 1550 to 1645 hours Sept. 5.

09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO

LOCATION.--Lat 39°19'24", long 108°55'48", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Middle Basin Reservoir and 7.5 mi (12.1 km) northwest of Mack.

DRAINAGE AREA.--0.092 mi² (0.238 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1976 to September 1981 (discontinued).

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,865 ft (1,483 m), from topographic map.

REMARKS.--Records fair, except for Sept. 5, which is poor.

AVERAGE DISCHARGE.--5 years, 0.001 ft³/s (0.001 m³/s), 0.7 acre-ft/yr (863 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50 ft³/s (1.42 m³/s) Sept. 5, 1981; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 50 ft³/s (1.42 m³/s) Sept. 5, gage height 2.13 ft (0.649 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

July 9	0.13	July 12	0.09	July 13	0.18	July 23	0.03	Sept. 5	0.41

CAL YR 1980	TOTAL 0.00	MEAN .000	MAX .00	MIN .00	AC-FT .00
WTR YR 1981	TOTAL 0.84	MEAN .002	MAX .41	MIN .00	AC-FT 1.7

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO FEB. 19.

09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March to September 1981 (discontinued).
WATER TEMPERATURE: March to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since March 1981. Pumping sampler since October 1976.

REMARKS.--No flow most of time. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR MARCH TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum, 1320 micromhos July 9; minimum, 300 micromhos July 23.
WATER TEMPERATURE: Maximum, 21.0°C July 23; minimum, 15.0°C July 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL												
09...	1940	2.5	1410	850	310	18	17	.3	11	120	710	3.3
12...	2350	2.7	1410	810	300	14	16	.2	10	120	710	3.8
23...	1805	.06	879	460	170	9.6	10	.2	8.5	94	350	6.2
23...	1810	.06	--	--	--	--	--	--	--	--	--	--
23...	1815	.02	836	360	132	8.0	11	.3	8.3	100	300	5.5
23...	1825	.63	742	410	151	7.6	6.6	.1	7.4	150	250	4.6
23...	1835	1.9	855	440	160	9.0	7.3	.2	9.4	110	340	12
23...	1845	1.5	928	490	183	9.0	9.6	.2	8.5	85	390	4.0
23...	1855	.47	1180	670	249	11	7.5	.1	9.4	89	540	3.4
SEP												
05...	1545	E50	1640	1000	390	16	13	.2	8.5	82	930	3.5
05...	1550	9.6	--	--	--	--	--	--	--	--	--	--
05...	1555	--	--	1000	380	22	22	.3	9.2	80	950	5.1
05...	1605	12	1590	920	350	12	12	.2	7.9	85	810	3.3
05...	1615	5.0	1570	820	310	12	12	.2	8.4	83	700	3.4
05...	1625	.39	1560	890	340	10	11	.2	9.0	93	770	4.7

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL												
09...	.2	12	1150	1.5	7.7	.00	.010	.01	.020	.020	170	470
12...	.2	5.5	1130	1.5	8.2	.02	.010	.03	.020	.020	110	260
23...	.3	13	1060	1.4	.17	--	--	2.7	.010	--	300	120
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	.2	11	538	.73	.03	--	--	.44	<.010	--	160	160
23...	.2	11	530	.72	.90	--	--	.19	.010	--	110	18
23...	.2	11	617	.84	3.1	--	--	.54	.010	--	54	12
23...	.2	9.9	672	.91	2.7	--	--	1.4	<.010	--	35	18
23...	.2	11	891	1.2	1.1	--	--	1.3	<.010	--	31	12
SEP												
05...	.2	9.7	1420	1.9	--	--	--	.21	<.010	--	100	490
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	.2	9.8	1450	1.9	--	--	--	.26	<.000	--	60	430
05...	.2	9.5	1260	1.7	40.8	--	--	.18	<.010	--	210	510
05...	.2	8.7	1110	1.5	15.0	--	--	.21	.010	--	230	590
05...	.2	8.3	1220	1.6	1.2	--	--	1.7	.010	--	840	640

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUL				
09...	1940	2.5	28600	193
12...	2350	2.7	22500	164
23...	1810	.06	21200	3.4
SEP				
05...	1550	9.6	57300	1490

E ESTIMATED.

09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---		
2										---		
3										---		
4										---		
5										---		
6										---		
7										---		
8										---		
9										930		
10										---		
11										---		
12										1070		
13										860		
14										---		
15										---		
16										---		
17										---		
18										---		
19										---		
20										---		
21										---		
22										---		
23										622		
24										---		
25										---		
26										---		
27										---		
28										---		
29										---		
30										---		
31										---		

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---				
2							---	---				
3							---	---				
4							---	---				
5							---	---				
6							---	---				
7							---	---				
8							---	---				
9							15.5	15.0				
10							---	---				
11							---	---				
12							20.0	19.5				
13							19.0	18.5				
14							---	---				
15							---	---				
16							---	---				
17							---	---				
18							---	---				
19							---	---				
20							---	---				
21							---	---				
22							---	---				
23							21.0	19.5				
24							---	---				
25							---	---				
26							---	---				
27							---	---				
28							---	---				
29							---	---				
30							---	---				
31							---	---				

09161000 BADGER WASH OBSERVATION RESERVOIR 2-A NEAR MACK, CO

LOCATION.--Lat 39°19'46", long 108°56'33", in NW¼NW¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank just upstream from West Twin Reservoir and 8.3 mi (13.4 km) northwest of Mack.

DRAINAGE AREA.--0.148 mi^2 (0.383 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, pbulished in WDR CO 1971. May 1976 to September 1981 (discontinued).

GAGE.--Water-stage recorder and 2-ft Parshall flume. Altitude of gage is 4,935 ft (1,504 m), from topographic map. September 1954, to September 1971, nonrecording gage at present site and datum.

REMARKS.--Records poor. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

AVERAGE DISCHARGE.--5 years, 0.001 ft^3/s (0.001 m^3/s), 0.7 acre-ft/yr (863 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 262 ft^3/s (7.42 m^3/s) July 25, 1965; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 75 ft^3/s (2.12 m^3/s), Sept. 5, gage height 2.40 ft (0.732 m), from nighwater mark; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

July 9 0.10 July 12 0.10 July 13 0.10 Sept. 5 0.50 Sept. 6 0.05

CAL YR 1980 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1981 TOTAL 0.85 MEAN .002 MAX .50 MIN .00 AC-FT 1.7

NOTE.--NO GAGE-HEIGHT RECORD Nov. 26 to Feb. 19, June 13 to July 15.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March to September 1981 (discontinued).
WATER TEMPERATURES: March to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since March 1981. Pumping sampler since October 1976.

REMARKS.--No flow most of time. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR MARCH TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum, 1550 micromhos Sept. 6; minimum 1120 micromhos Sept. 5.
WATER TEMPERATURES: Maximum, 18.0°C Sept. 5; minimum 16.0°C Sept. 5.

09163050 BADGER WASH NEAR MACK, CO

LOCATION.--Lat 39°17'36", long 108°55'59", in NE¼NW¼ sec.7, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 250 ft (76 m) upstream from bridge, 2.9 mi (4.7 km) upstream from mouth, and 6.0 mi (9.7 km) northwest of Mack.

DRAINAGE AREA.--6.51 mi² (16.86 km²).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,690 ft (1,430 m), from topographic map.

REMARKS.--Records good. Flow is mostly water wasted into creek 300 ft (91 m) above gage from Government Highline Canal. Natural flow of stream affected by numerous small detention reservoirs on tributaries upstream. No known diversion above gage.

AVERAGE DISCHARGE.--8 years, 6.83 ft³/s (0.193 m³/s), 4,950 acre-ft/yr (6.10 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 618 ft³/s (17.5 m³/s) July 4, 1977, gage height, 4.75 ft (1.448 m), from rating curve extended above 60 ft³/s (1.7 m³/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft³/s (2.10 m³/s) at 1030 Apr. 9, gage height, 3.37 ft (1.027 m), from peak stage indicator; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	.00	.00	.00	.00	.00	.00	.37	18	.00	.00	10
2	16	.00	.00	.00	.00	.00	.00	.46	18	.00	.00	7.6
3	21	.00	.00	.00	.00	.00	.00	.71	20	.00	.52	9.7
4	22	.00	.00	.00	.00	.00	13	2.8	21	.00	.16	15
5	20	.00	.00	.00	.00	.00	43	3.5	22	.00	.00	17
6	20	.00	.00	.00	.00	.00	44	4.3	22	.00	.01	14
7	18	.00	.00	.00	.00	.00	55	5.3	23	.00	.05	11
8	12	.00	.00	.00	.00	.00	67	7.5	24	.00	.09	8.6
9	12	.00	.00	.00	.00	.00	47	12	24	.00	.14	9.2
10	16	.00	.00	.00	.00	.00	31	15	25	.00	.18	11
11	18	.00	.00	.00	.00	.00	19	16	21	.00	.24	12
12	23	.00	.00	.00	.00	.00	25	21	16	.07	.63	14
13	23	.00	.00	.00	.00	.00	16	22	15	1.8	3.9	16
14	20	.00	.00	.00	.00	.00	12	18	12	6.2	6.7	17
15	19	.00	.00	.00	.00	.00	15	15	11	8.9	5.8	20
16	16	.00	.00	.00	.00	.00	11	17	9.5	9.1	7.8	21
17	27	.00	.00	.00	.00	.00	1.8	17	4.4	9.0	8.6	24
18	30	.00	.00	.00	.00	.00	.13	16	1.4	9.8	6.0	25
19	31	.00	.00	.00	.00	.00	.01	14	.54	9.1	3.7	24
20	14	.00	.00	.00	.00	.00	.13	13	.03	7.4	4.6	23
21	.02	.00	.00	.00	.00	.00	4.8	12	.00	8.9	7.0	22
22	.01	.00	.00	.00	.00	.00	4.4	14	.00	13	8.2	21
23	.01	.00	.00	.00	.00	.00	8.0	15	.00	7.7	4.7	23
24	.00	.00	.00	.00	.00	.00	5.5	16	.00	5.2	2.4	23
25	.00	.00	.00	.00	.00	.00	1.9	18	.00	6.5	.48	22
26	.00	.00	.00	.00	.00	.00	.24	17	.00	3.2	.59	23
27	.00	.00	.00	.00	.00	.00	.92	13	.00	3.7	.87	25
28	.00	.00	.00	.00	.00	.00	1.4	11	.00	1.5	1.1	24
29	.00	.00	.00	.00	---	.00	1.3	9.7	.00	.12	1.6	25
30	.00	.00	.00	.00	---	.00	.52	12	.00	.00	2.9	25
31	.00	---	.00	.00	---	.00	---	17	---	.00	5.9	---
TOTAL	392.04	.00	.00	.00	.00	.00	429.05	375.64	307.87	111.19	84.86	542.1
MEAN	12.6	.000	.000	.000	.000	.000	14.3	12.1	10.3	3.59	2.74	18.1
MAX	31	.00	.00	.00	.00	.00	67	22	25	13	8.6	25
MIN	.00	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00	7.6
AC-FT	778	.00	.00	.00	.00	.00	851	745	611	221	168	1080

CAL YR 1980 TOTAL 2984.48 MEAN 8.15 MAX 60 MIN .00 AC-FT 5920
WTR YR 1981 TOTAL 2242.75 MEAN 6.14 MAX 67 MIN .00 AC-FT 4450

09163310 EAST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°17'50", long 108°51'58", in SE¼SE¼ sec.3, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 100 ft (30 m) upstream from bridge, 200 ft (61 m) downstream from Dry Canyon Wash, and 5.0 mi (8.0 km) north of Mack.

DRAINAGE AREA.--197 mi^2 (510 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (1,417 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, and period Aug. 17-23 and Sept. 16, stage-discharge relationship indefinite, which are poor. Some regulation by several small detention reservoirs and stock ponds on tributaries above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--8 years, 5.75 ft^3/s (0.163 m^3/s), 4,170 acre-ft/yr (5.14 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft^3/s (74.5 m^3/s) July 18, 1974, gage height, 9.95 ft (3.033 m), from floodmarks, from rating curve extended above 240 ft^3/s (6.8 m^3/s), on basis of slope-area measurement of peak flow; minimum daily,0.06 ft^3/s (0.002 m^3/s) Mar. 16, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1972, reached a stage of 8.9 ft (2.71 m), from floodmarks (discharge, 2,160 ft^3/s or 61.2 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Sept. 11	unknown	499	14.1	4.58	1.396	Sept. 12	0400	*750	21.2	5.40	1.646

Minimum daily discharge, 0.08 ft^3/s (0.002 m^3/s) July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	1.4	.31	1.4	1.8	1.6	2.8	1.6	2.8	.35	.08	11
2	.31	1.0	.30	2.3	1.7	.35	3.3	1.4	2.6	.26	.12	6.2
3	.36	1.2	.24	2.9	1.1	.69	3.4	2.5	7.4	.26	.10	5.0
4	.50	1.2	.30	2.2	1.7	.63	5.5	4.0	4.7	.29	.20	5.2
5	.53	1.1	.55	2.2	2.6	.48	4.0	2.6	2.4	.52	.24	5.6
6	.53	1.2	.43	1.7	3.9	.55	2.3	1.9	1.7	.52	.24	4.1
7	.54	1.5	.37	.90	5.4	.59	1.3	1.5	1.2	.19	.50	3.6
8	.54	1.6	.29	.28	3.9	.60	.87	1.1	.86	.18	.38	3.3
9	.37	1.5	.26	.28	3.7	.40	.32	1.1	.78	.20	.33	3.1
10	.45	1.8	.28	.31	3.4	.63	.20	.62	.80	.23	.47	3.1
11	.57	1.9	.27	.54	2.1	.69	.16	.46	.78	.21	.54	90
12	.84	2.1	.28	.55	1.5	.87	2.8	.68	.76	.24	.58	110
13	.38	2.6	.28	1.1	4.4	.91	2.8	.84	.79	.27	1.2	8.2
14	2.4	3.6	.26	.67	3.7	2.5	1.6	.86	.81	.34	.75	6.0
15	32	3.2	.23	.46	3.2	.52	1.2	.74	.74	.35	.74	4.9
16	15	1.2	.20	1.1	2.9	.62	.67	1.6	.86	.36	4.8	1.7
17	7.1	.46	.18	4.7	2.8	.70	.28	3.5	.86	.40	.86	2.1
18	4.0	.34	.29	2.5	2.9	.76	.32	1.9	.62	.46	.74	4.2
19	2.5	.24	.22	2.8	2.8	.69	.11	.98	.62	.54	.50	4.7
20	2.6	.24	.25	2.6	3.3	.62	.21	.74	.50	.50	.74	5.5
21	3.9	.24	.46	3.7	2.4	.75	.78	.74	3.7	.54	.50	5.7
22	3.4	.28	2.0	3.3	1.0	.69	2.4	1.2	6.5	.52	.50	5.5
23	1.9	.34	1.8	3.5	2.3	.36	1.9	1.5	8.0	.53	.50	6.5
24	1.2	.33	1.3	4.4	2.8	.33	2.0	1.6	6.0	.43	.67	7.4
25	.93	.26	1.0	4.7	2.5	.32	1.8	1.5	1.8	.33	.85	8.0
26	1.3	.22	1.7	2.2	2.0	.75	1.7	1.2	.70	.44	1.1	9.1
27	1.7	.20	2.2	2.5	2.2	.76	1.8	1.1	.29	.50	2.4	9.7
28	2.4	.21	2.5	2.7	2.1	.83	2.0	1.3	.29	.20	1.4	9.7
29	1.7	.24	2.7	4.0	---	1.2	2.0	2.5	.36	.14	1.6	10
30	1.7	.20	2.5	3.8	---	2.2	1.6	6.6	.54	.10	2.4	10
31	1.6	---	1.5	2.8	---	2.6	---	2.8	---	.08	50	---
TOTAL	93.51	31.90	25.45	69.09	76.1	26.19	52.12	52.66	60.76	10.48	76.03	369.1
MEAN	3.02	1.06	.82	2.23	2.72	.84	1.74	1.70	2.03	.34	2.45	12.3
MAX	32	3.6	2.7	4.7	5.4	2.6	5.5	6.6	8.0	.54	50	110
MIN	.26	.20	.18	.28	1.0	.32	.11	.46	.29	.08	.08	1.7
AC-FT	185	63	50	137	151	52	103	104	121	21	151	732

CAL YR 1980 TOTAL 6189.91 MEAN 16.9 MAX 260 MIN .09 AC-FT 12280
WTR YR 1981 TOTAL 943.39 MEAN 2.58 MAX 110 MIN .08 AC-FT 1870

NOTE.--NO GAGE-HEIGHT RECORD JUNE 21 TO JULY 23.

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to current year.
WATER TEMPERATURES: July 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 13,500 micromhos Apr. 26, 1974; minimum, 488 micromhos May 13, 1978.
WATER TEMPERATURES: Maximum, 33.5°C June 28, 1979; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 11,900 micromhos Dec. 18; minimum, 2,040 micromhos June 24.
WATER TEMPERATURES: Maximum, 32.5°C July 8; minimum, 0.0°C Jan. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)
OCT								
07...	1030	.41	5050	--	8.2	12.0	8.8	1600
FEB								
18...	1010	281	7500	7320	8.1	4.5	11.2	2100
MAY								
12...	1005	.74	8900	9150	8.4	14.0	9.7	2400
JUL								
23...	0840	.54	3190	3180	8.0	19.5	7.3	1100

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
07...	310	210	660	7.1	8.0	330	2200	280	.4
FEB									
18...	200	380	1200	12	4.0	510	3600	170	.4
MAY									
12...	240	430	1600	14	5.5	480	4500	370	.4
JUL									
23...	210	130	380	5.1	6.5	250	1300	190	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT								
07...	12	3880	5.3	4.3	.66	.030	60	430
FEB								
18...	13	5880	8.0	4460	1.5	.040	110	130
MAY								
12...	9.8	7450	10.1	14.9	.21	.070	70	210
JUL								
23...	11	2380	3.2	3.5	.06	.040	40	410

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7420	6770	7330	8030	7750	8220	6590	7160	5960	5130	5730	3000
2	7770	7000	7340	8080	8210	8720	5450	7130	6020	5420	5220	3200
3	6870	7170	7290	8120	7960	9170	5140	7200	5930	5540	5590	3300
4	6340	7300	7390	8040	8660	9240	4240	7190	5830	4440	4100	3600
5	6320	7420	8930	8040	8370	9410	3870	6600	5920	3160	4460	3400
6	5910	7560	8830	7930	8070	9410	4210	6780	5730	3200	4170	3600
7	4560	7340	8240	7750	7850	9360	6120	7190	5300	4560	3570	3500
8	5400	7150	8300	7080	8000	9340	7860	7550	6270	4210	3950	3400
9	5780	7220	8210	6250	7800	9650	8220	7990	3910	4140	4090	3400
10	5710	7450	8210	6060	7410	9850	8860	8400	2580	3660	3950	3500
11	4950	7150	8140	6450	7750	9840	9240	8280	2700	4090	4760	3500
12	4840	7590	8100	6280	7850	9860	6960	9150	2550	3600	4460	3600
13	5390	7490	8370	6210	7840	9900	5150	7740	2590	3290	5040	3600
14	5470	7220	8390	5790	7320	9190	4940	6430	2710	3160	4180	3600
15	4130	7360	7370	5950	6930	9180	4740	5720	2970	3260	4130	3800
16	3780	7970	6810	6240	7020	9390	5520	7050	3260	3000	5020	4300
17	4160	8720	6990	6620	7270	9750	5680	7750	3250	2960	4070	4480
18	4600	9230	8430	7090	7040	9770	5260	7730	3430	2880	3400	4310
19	4620	9160	10100	7380	6860	9620	7350	7840	3670	3040	3340	4710
20	4780	9160	10300	7730	6870	9670	6820	7940	4640	3150	3140	4160
21	4850	8890	10600	7640	7050	9800	7400	8870	3700	3220	2900	4170
22	5240	9070	10700	7600	7910	9540	6350	9120	3290	3270	2850	4200
23	5880	8810	9700	7730	8500	9320	5950	5640	3100	3000	3320	3890
24	6280	8090	9910	7560	8430	9480	5960	4830	3130	5260	3600	3860
25	6820	7720	8460	7330	8230	9440	6110	4290	3920	4000	3800	3980
26	6720	7590	7780	7700	8210	9130	6370	4650	4010	3330	3000	4670
27	6320	7290	7710	7760	8210	9100	6620	4780	6340	3310	3200	4300
28	6020	7450	7640	8410	8250	8740	6760	4360	6220	4210	3500	3750
29	6260	7280	9000	7340	---	8260	6850	5770	5590	5320	3300	4130
30	6550	7160	9600	6940	---	7390	7040	5980	4660	5560	2900	4420
31	6630	---	8340	7180	---	6490	---	5800	---	5610	2700	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.0	10.5	13.5	5.5	9.5	3.0	8.0	2.0	8.0	1.0	12.0	4.0
2	25.0	11.5	13.0	6.0	10.0	3.0	7.5	2.0	8.0	1.0	7.5	3.0
3	24.5	10.0	12.5	6.0	11.0	5.5	6.5	1.5	8.0	1.5	15.0	3.0
4	24.5	10.0	14.5	6.5	9.5	4.5	7.0	2.5	9.0	1.5	13.5	5.0
5	24.5	10.0	15.5	7.5	9.0	5.0	6.0	3.5	8.5	1.0	15.5	3.5
6	24.0	10.5	14.0	7.0	11.0	5.5	8.0	1.5	9.5	1.5	9.5	5.0
7	22.5	10.0	13.0	7.0	11.0	6.5	8.0	1.5	8.0	1.5	14.5	5.0
8	23.0	10.0	13.0	6.5	9.5	5.0	7.5	1.5	6.5	1.5	17.5	3.0
9	22.5	10.0	13.5	6.5	9.0	3.0	7.5	1.5	6.5	1.5	19.5	3.0
10	22.5	10.0	12.5	6.0	7.5	2.0	7.5	2.5	5.0	1.5	18.0	5.5
11	22.0	9.5	11.0	6.0	7.5	2.0	7.0	2.0	3.0	1.5	14.5	6.0
12	17.5	11.0	13.0	8.0	8.0	2.5	6.5	2.5	10.0	1.5	20.0	7.0
13	20.0	13.0	11.0	8.5	8.0	2.0	6.5	1.5	11.5	1.5	19.0	5.5
14	18.5	10.5	8.0	5.5	7.5	2.0	6.5	1.5	9.0	1.5	16.0	6.5
15	11.0	6.5	7.5	2.5	8.5	2.5	7.0	1.5	8.5	2.0	21.0	4.5
16	10.5	6.5	8.5	2.0	9.5	3.0	6.5	1.5	8.5	2.0	17.5	5.0
17	10.5	7.0	9.0	2.0	9.0	2.5	6.0	1.5	8.0	3.5	18.0	6.5
18	13.0	6.0	9.0	2.0	9.0	2.5	6.0	1.0	8.5	3.0	20.0	5.5
19	16.5	5.5	9.5	2.5	8.5	2.5	7.5	1.5	9.0	3.5	19.0	5.0
20	15.5	6.0	10.0	2.5	8.5	2.0	8.5	1.5	7.5	4.0	17.0	7.5
21	14.5	6.0	9.5	2.5	9.0	2.5	8.5	1.5	9.0	1.0	14.0	7.0
22	14.5	7.0	9.5	3.0	8.5	3.5	8.0	1.5	14.0	1.5	21.5	5.5
23	12.0	5.5	9.5	4.0	8.5	2.5	8.0	1.5	13.5	1.5	23.0	6.0
24	14.0	4.5	9.0	4.5	8.5	2.0	8.0	1.5	10.0	2.5	21.5	7.5
25	15.0	5.0	9.0	4.0	8.0	2.5	6.5	1.5	9.0	2.5	21.5	4.5
26	11.0	6.0	9.5	4.5	8.0	3.0	5.5	1.5	8.5	4.0	20.5	8.0
27	10.5	7.0	9.0	4.5	8.0	2.5	5.5	.0	11.5	3.0	15.0	8.0
28	10.0	3.5	9.0	3.0	7.5	3.0	5.0	2.0	12.5	2.5	14.5	8.0
29	11.5	4.0	8.5	3.5	9.0	1.5	6.5	1.5	---	---	20.5	7.0
30	12.5	4.0	10.0	5.0	8.5	1.5	3.5	2.0	---	---	11.0	5.5
31	12.0	4.5	---	---	8.5	2.0	5.5	1.5	---	---	15.5	3.5

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.5	6.0	27.5	14.5	28.0	14.5	23.0	19.5	27.5	18.0	---	---
2	16.5	7.5	24.5	16.0	27.5	15.0	29.5	17.5	27.0	17.0	---	---
3	12.5	9.5	24.0	14.5	21.0	16.0	30.0	18.5	27.0	17.0	---	---
4	13.0	6.0	22.5	11.5	26.5	14.5	29.5	17.0	27.0	17.0	---	---
5	14.5	4.5	24.5	12.5	28.5	14.5	30.0	16.0	26.5	15.5	---	---
6	19.5	6.5	25.0	13.5	30.5	15.0	30.0	16.0	27.0	15.5	---	---
7	15.5	9.0	23.0	10.0	28.0	15.5	29.5	19.0	27.0	16.5	---	---
8	21.0	9.0	15.5	9.5	28.0	15.0	32.5	18.0	27.0	16.0	---	---
9	24.0	7.0	25.0	7.5	28.0	15.5	29.5	18.0	25.5	16.5	---	---
10	24.0	7.0	27.0	8.5	29.0	16.0	31.5	18.0	21.0	16.5	---	---
11	24.0	7.0	23.5	11.5	29.0	16.0	32.0	19.5	19.5	16.5	---	---
12	19.5	7.5	24.0	11.5	26.5	14.5	29.5	20.0	21.5	15.5	---	---
13	21.5	10.0	25.5	8.0	25.0	14.0	27.5	20.0	25.5	15.0	---	---
14	23.0	10.0	27.0	9.5	19.5	11.0	31.0	20.5	26.5	15.5	24.5	14.5
15	23.0	13.0	19.5	11.5	24.0	9.0	30.5	20.0	24.5	16.0	23.5	13.5
16	27.5	10.5	17.5	12.0	25.5	10.0	22.0	20.5	25.5	14.5	24.0	13.5
17	27.0	10.5	18.0	11.5	25.5	11.5	28.0	19.5	27.0	15.5	23.0	13.0
18	25.0	11.5	25.5	11.0	26.5	12.5	29.0	19.5	24.5	16.0	21.5	12.5
19	21.0	10.0	24.0	12.5	27.5	13.5	29.5	18.5	24.5	16.0	21.5	13.5
20	22.0	8.0	17.5	12.0	27.5	15.5	28.5	17.0	24.5	17.0	21.5	14.0
21	22.0	8.5	18.0	9.5	28.0	16.5	28.5	17.0	19.5	16.5	22.0	15.0
22	23.5	9.0	19.0	12.0	29.5	16.0	28.5	19.0	23.0	16.5	21.5	15.0
23	25.0	10.5	24.0	11.0	29.0	16.5	28.5	19.5	24.0	17.0	21.5	14.0
24	25.0	12.0	25.0	12.0	29.5	17.0	29.5	19.0	---	---	21.0	15.0
25	25.0	12.5	22.0	14.0	30.0	17.0	27.5	19.0	---	---	19.5	15.0
26	24.5	11.5	21.5	14.0	30.0	18.5	27.0	19.0	---	---	19.5	13.5
27	22.5	12.5	26.0	14.5	30.0	20.0	28.0	17.5	---	---	19.5	12.0
28	25.5	12.0	26.5	15.0	31.0	19.5	27.0	17.5	---	---	19.5	12.5
29	26.0	12.5	23.0	14.5	30.0	18.0	26.5	17.5	---	---	19.0	14.0
30	26.0	13.0	28.0	14.0	29.0	18.0	26.5	17.5	---	---	19.5	13.5
31	---	---	27.5	16.5	---	---	27.0	17.5	---	---	---	---

09163340 MACK WASH NEAR MACK, CO

LOCATION.--Lat 39°15'57", long 108°50'32", in NE¼NW¼ sec.8, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just downstream from culvert under R Road, 0.2 mi (0.3 km) downstream from Highline Lake dam, and 3.1 mi (5.0 km) north of Mack.

DRAINAGE AREA.--15.9 mi² (41.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,615 ft (1,407 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Flow regulated at times by Highline Lake, capacity, 3,400 acre-ft (4.19 hm³). Mack Mesa Lake, capacity, 131 acre-ft (162,000 m³) is on a tributary to Highline Lake. Natural flow of stream affected by several small detention reservoirs and stock ponds on tributaries upstream. Flows include water wasted into Highline Lake from Government Highline Canal just below Lateral No. 48.

AVERAGE DISCHARGE.--8 years, 24.8 ft³/s (0.702 m³/s), 17,970 acre-ft/yr (22.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204 ft³/s (5.78 m³/s) Apr. 20, 1975, gage height, 2.56 ft (0.780 m); minimum daily, 1.3 ft³/s (0.037 m³/s) June 20 to July 1, 1977, Apr. 12-17, 1980, Mar. 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 150 ft³/s (4.25 m³/s) at 1700 Apr. 6, gage height, 1.97 ft (0.600 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	2.4	2.0	1.5	1.5	1.5	1.7	4.0	60	4.5	13	68
2	24	2.4	2.1	1.5	1.5	1.5	1.7	3.7	65	4.0	12	76
3	12	2.5	2.1	1.5	1.6	1.5	1.7	3.5	67	15	9.0	70
4	7.7	2.4	1.9	1.5	1.5	1.4	2.5	5.0	54	36	8.0	64
5	6.2	2.4	1.9	1.5	1.7	1.4	78	20	36	45	6.0	62
6	5.6	2.2	1.9	1.5	1.6	1.4	140	40	30	10	5.0	70
7	5.2	2.2	2.0	1.5	1.5	1.4	80	45	25	5.8	4.0	68
8	5.2	2.4	2.0	1.5	1.5	1.4	40	35	21	6.0	3.7	74
9	4.8	2.2	2.0	1.5	1.5	1.5	44	47	15	6.2	3.0	80
10	4.3	2.2	2.0	1.5	1.5	1.4	54	54	30	5.6	2.4	100
11	4.5	2.2	1.9	1.5	1.5	1.4	65	60	30	16	2.4	115
12	4.8	2.3	1.9	1.5	1.5	1.4	34	52	15	45	2.4	130
13	5.7	2.3	1.9	1.6	1.6	1.3	27	55	10	47	2.2	120
14	12	2.2	1.9	1.6	1.6	1.4	16	49	9.0	58	4.9	115
15	34	2.2	1.9	1.6	1.6	1.4	17	36	8.4	66	5.8	110
16	55	2.2	1.7	1.6	1.6	1.5	7.9	19	8.0	57	23	110
17	78	2.2	1.7	1.6	1.6	1.5	6.7	17	8.0	50	15	103
18	65	2.2	1.7	1.5	1.6	1.5	6.5	26	7.8	45	10	100
19	27	2.2	1.7	1.5	1.6	1.5	6.5	40	7.0	40	7.0	101
20	12	2.1	1.7	1.5	1.7	1.5	6.1	45	6.8	70	5.6	90
21	8.1	2.1	1.7	1.5	1.7	1.5	6.4	69	5.0	28	5.0	88
22	5.6	2.0	1.7	1.5	1.7	1.5	10	83	4.5	10	5.0	85
23	4.2	2.0	1.7	1.6	1.7	1.5	9.0	84	4.3	18	7.0	80
24	3.4	2.1	1.7	1.6	1.7	1.5	8.0	78	4.3	29	13	72
25	3.0	2.1	1.6	1.6	1.5	1.5	7.0	77	4.2	40	22	70
26	3.0	2.0	1.6	1.5	1.5	1.4	6.0	67	4.0	38	18	76
27	2.8	2.1	1.5	1.5	1.5	1.4	7.0	62	4.0	37	15	84
28	2.7	2.2	1.5	1.5	1.5	1.4	6.0	67	4.0	31	40	85
29	2.4	2.1	1.5	1.5	---	1.5	5.0	52	4.0	27	68	80
30	2.6	2.2	1.5	1.5	---	1.6	4.5	45	4.0	20	68	73
31	2.5	---	1.5	1.5	---	1.7	---	46	---	15	70	---
TOTAL	440.3	66.3	55.4	47.3	44.1	45.3	705.2	1386.2	555.3	925.1	475.4	2619
MEAN	14.2	2.21	1.79	1.53	1.58	1.46	23.5	44.7	18.5	29.8	15.3	87.3
MAX	78	2.5	2.1	1.6	1.7	1.7	140	84	67	70	70	130
MIN	2.4	2.0	1.5	1.5	1.5	1.3	1.7	3.5	4.0	4.0	2.2	62
AC-FT	873	132	110	94	87	90	1400	2750	1100	1830	943	5190

CAL YR 1980 TOTAL 7195.6 MEAN 19.7 MAX 183 MIN 1.3 AC-FT 14270
WTR YR 1981 TOTAL 7364.9 MEAN 20.2 MAX 140 MIN 1.3 AC-FT 14610

NOTE.--NO GAGE-HEIGHT RECORD JUNE 10 TO AUG. 12, AUG. 14 TO SEPT. 16.

09163340 MACK WASH NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURES: July 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,990 micromhos Nov. 6, 1979; minimum, 709 micromhos June 6, 1979.
WATER TEMPERATURES: Maximum, 26.0°C July 22, 24, 1976; minimum, 1.5°C Feb. 17-19, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE Maximum, 4,790 micromhos Oct. 31; minimum, 1,060 micromhos June 2.
WATER TEMPERATURES: Maximum, 24.5°C July 11-15; minimum, 6.0°C Feb. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT 07...	1145	5.1	2700	2572	7.4	16.5	9.0	1300
FEB 18...	1130	1.5	4800	3650	7.7	9.0	9.8	1900
MAY 12...	1200	61	1340	1380	8.3	16.0	8.3	620
JUL 23...	1015	18	1447	1600	8.1	22.0	7.8	580

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	320	110	280	3.4	7.0	210	1200	160	.3
FEB 18...	500	150	250	2.5	6.1	200	1900	160	.3
MAY 12...	120	78	300	5.2	4.1	170	340	170	.2
JUL 23...	161	44	130	2.5	4.2	140	500	150	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 07...	9.9	2230	3.0	30.9	2.7	.010	40	120
FEB 18...	11	3110	4.2	13.4	3.2	.020	90	100
MAY 12...	6.6	1120	1.5	185	.23	.040	20	30
JUL 23...	9.4	1090	1.5	53.3	.63	.040	34	14

09163340 MACK WASH NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	3800	3800	3690	3650	3600	3620	3570	1160	3750	2480	1370
2	1600	3760	3750	3690	3650	3550	3630	3410	1120	3750	2850	1340
3	1740	3870	3750	3690	3670	3550	3630	3570	1090	3750	3140	1360
4	1930	3850	3750	3680	3670	3550	3440	3570	1120	2330	3390	1340
5	2120	3750	3750	3680	3670	3550	1520	1950	1150	1760	3540	1360
6	2220	3800	3750	3680	3670	3550	1490	1570	1170	2220	3610	1380
7	2580	3800	3750	3680	3670	3550	1510	1500	1230	2700	3630	1370
8	2970	3800	3750	3680	3670	3500	1560	1520	1270	3170	3620	1350
9	3020	3800	3750	3680	3670	3510	1550	1460	1370	3480	3620	1320
10	3000	3800	3750	3680	3670	3530	1540	1390	1280	3210	3640	1310
11	2940	3800	3750	3680	3670	3540	1540	1340	1370	1710	3660	1300
12	1850	3800	3750	3680	3670	3560	1580	1340	1830	1360	3670	1300
13	1430	3800	3750	3680	3670	3590	1600	1350	2460	1280	3670	1300
14	1360	3800	3740	3670	3680	3600	1660	1360	3000	1230	3670	1300
15	1300	3800	3710	3670	3680	3620	1640	1390	3370	1230	3520	1300
16	1300	3730	3700	3670	3680	3670	1820	1480	3480	1270	2160	1330
17	1250	3530	3700	3670	3680	3670	2130	1460	3520	1310	1600	1360
18	1900	3550	3700	3670	3680	3660	2480	1380	3560	1320	1530	1350
19	2270	3800	3700	3670	3650	3660	2800	1330	3560	1320	1540	1340
20	2390	3800	3700	3670	3650	3690	2950	1330	3610	1340	1590	1340
21	1850	3800	3700	3670	3650	3660	2860	1310	3670	1450	1930	1330
22	2000	3800	3700	3670	3650	3660	2030	1240	3690	1630	2070	1330
23	2100	3800	3700	3670	3600	3650	2250	1240	3730	1570	1660	1320
24	2230	3800	3700	3650	3600	3670	2550	1220	3720	1430	1550	1320
25	2400	3800	3690	3650	3600	3620	2880	1220	3720	1390	1570	1320
26	2500	3800	3690	3650	3600	3670	3200	1210	3720	1390	1590	1310
27	2910	3800	3690	3650	3600	3640	3400	1210	3740	1410	1650	1300
28	3300	3800	3690	3650	3600	3630	2950	1200	3740	1430	1590	1280
29	3360	3800	3690	3650	---	3630	3540	1220	3750	1480	1540	1280
30	3410	3800	3690	3650	---	3610	3560	1220	3740	1580	1500	1290
31	3600	---	3690	3650	---	3620	---	1180	---	1980	1440	---

09163340 MACK WASH NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.0	14.0	9.0	10.5	8.5	10.0	7.5	10.0	7.5	11.5	8.5
2	19.5	17.5	13.5	9.0	10.5	8.5	10.0	8.0	9.5	7.0	9.5	8.5
3	19.0	16.0	13.5	9.0	11.5	9.0	10.0	8.0	9.5	6.5	13.0	8.0
4	19.0	15.5	14.0	9.5	11.5	9.0	10.5	8.5	10.0	6.5	11.5	9.0
5	18.5	15.0	14.0	9.5	10.5	9.5	9.5	8.5	9.0	6.5	12.5	8.0
6	18.5	14.5	14.0	9.5	10.5	9.5	10.0	8.0	10.5	7.0	10.0	9.0
7	18.5	14.0	13.5	10.0	11.0	9.5	10.0	7.5	10.0	6.5	12.0	9.0
8	18.5	13.5	14.0	9.5	10.5	9.0	9.5	7.5	9.5	6.5	13.5	8.0
9	18.0	13.5	14.0	9.5	10.5	8.5	9.5	7.5	9.5	7.5	12.0	8.0
10	18.0	13.0	13.5	9.0	9.5	7.5	9.5	7.5	9.0	7.0	11.5	8.0
11	18.0	13.0	13.0	9.5	10.0	7.5	10.0	7.5	8.5	6.0	10.5	8.0
12	16.0	13.0	13.5	10.5	9.5	7.5	9.5	7.5	10.5	7.0	12.5	8.5
13	17.5	14.5	12.0	10.0	10.0	7.5	9.5	7.0	11.0	7.0	11.5	7.5
14	16.5	15.0	11.5	9.0	10.0	7.5	9.5	7.0	11.5	8.0	12.5	8.0
15	15.5	15.0	11.0	8.0	10.0	8.0	9.5	7.5	12.0	8.5	13.0	8.0
16	15.0	14.5	10.0	7.5	10.5	8.0	9.5	7.5	12.0	8.0	11.5	8.0
17	14.5	14.0	10.0	7.5	10.5	8.0	10.5	8.5	11.5	8.0	11.5	8.0
18	15.0	13.5	10.5	7.5	10.5	8.0	10.0	7.5	12.0	8.0	12.5	7.5
19	14.5	12.5	10.5	7.5	10.5	8.0	10.0	7.5	12.0	8.0	12.0	7.5
20	15.0	12.0	10.5	8.0	10.0	8.0	10.0	7.5	10.0	8.5	11.0	8.5
21	15.0	12.0	10.5	8.0	10.5	8.0	10.0	7.5	11.5	7.0	10.5	8.0
22	14.5	10.5	10.0	8.0	11.0	8.5	10.0	7.5	11.5	7.0	13.0	8.0
23	14.0	10.0	11.0	8.5	11.0	9.0	10.0	7.0	12.5	7.5	13.5	8.5
24	14.0	9.5	10.0	8.5	10.0	8.0	10.0	7.5	13.0	8.0	13.0	9.0
25	14.0	9.0	10.0	8.0	10.5	8.5	10.0	7.5	12.0	7.5	12.5	8.0
26	12.5	9.5	10.5	8.0	10.5	8.0	9.0	6.5	10.5	8.5	12.5	8.5
27	12.5	9.5	10.0	7.5	10.5	8.0	9.0	7.0	12.5	8.0	10.0	8.5
28	13.5	9.0	10.0	8.0	10.5	8.5	9.0	8.0	12.5	7.5	10.0	8.0
29	13.0	8.5	10.0	7.5	10.5	8.0	10.5	8.0	---	---	13.0	8.0
30	13.5	9.0	10.5	8.5	10.0	7.5	9.5	8.5	---	---	10.0	8.0
31	13.5	9.0	---	---	10.0	7.5	9.0	7.5	---	---	12.5	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	8.0	18.0	10.0	20.0	18.0	15.0	13.0	22.0	17.0	22.0	20.0
2	12.5	8.0	15.5	11.0	20.0	18.5	18.5	12.5	21.5	15.5	21.5	19.5
3	10.5	9.0	14.5	11.0	20.0	18.5	18.0	12.0	20.5	14.5	21.0	20.0
4	11.0	8.0	17.0	9.0	20.5	18.5	22.5	13.0	20.0	13.5	21.0	20.0
5	9.0	8.0	17.5	12.0	21.5	19.0	23.5	20.0	19.5	12.0	20.5	20.0
6	9.5	7.5	17.0	14.5	21.0	18.0	23.5	18.5	19.0	12.0	20.0	19.5
7	9.0	8.0	16.0	14.5	20.0	18.0	21.5	17.0	18.5	12.0	21.0	19.5
8	10.5	8.5	15.0	14.5	19.5	18.5	21.0	15.0	18.5	12.0	20.0	19.5
9	10.5	8.0	15.0	14.0	19.5	18.0	19.5	14.0	19.0	12.5	20.5	19.0
10	11.5	8.5	15.5	14.5	21.5	18.5	21.5	13.0	14.5	12.5	20.0	19.0
11	11.5	8.5	15.0	13.5	21.5	18.0	24.5	20.0	14.5	12.5	20.5	19.0
12	12.0	9.5	14.5	13.5	20.0	16.5	24.5	23.0	16.0	12.0	20.0	19.0
13	12.0	11.0	15.0	14.0	19.0	13.5	24.5	23.5	17.5	12.5	20.0	19.0
14	13.5	11.0	16.0	13.5	16.0	11.5	24.5	23.5	18.5	12.5	20.5	19.0
15	14.5	11.5	15.5	13.0	18.0	10.0	24.5	23.5	17.5	12.5	20.0	19.0
16	15.5	11.5	14.5	14.0	18.0	10.0	24.0	22.5	21.5	15.5	20.0	19.0
17	16.0	12.0	14.5	14.0	18.0	10.5	23.5	22.0	22.0	19.5	19.5	19.0
18	16.0	11.0	16.5	13.5	18.0	11.0	23.5	21.5	22.5	20.0	19.5	18.5
19	13.5	10.5	16.0	14.0	18.0	11.0	23.5	22.0	22.0	20.0	19.5	18.0
20	15.0	9.5	14.5	13.5	18.5	11.5	23.5	21.5	22.5	20.0	19.5	18.0
21	14.5	9.5	14.5	13.5	19.0	11.5	23.5	20.5	20.0	18.0	19.0	18.0
22	15.5	11.0	14.5	14.0	19.0	11.5	23.5	20.0	21.0	17.0	19.5	18.0
23	16.5	11.5	16.5	14.5	19.0	11.5	24.0	21.5	22.0	19.5	19.0	18.0
24	17.0	11.0	16.0	15.0	19.0	12.0	24.0	21.5	22.0	20.5	19.0	18.5
25	17.0	11.0	16.5	14.0	19.0	12.0	23.5	21.5	22.0	20.0	18.5	17.5
26	16.5	10.0	17.0	14.5	19.5	12.5	23.0	21.0	22.0	20.5	18.5	17.5
27	15.0	10.0	17.0	15.5	19.5	12.5	22.5	20.5	22.5	20.5	18.5	18.0
28	15.5	9.0	17.5	16.5	19.5	13.0	23.0	21.0	22.0	20.5	18.5	17.0
29	17.0	9.5	18.5	17.5	19.5	12.0	23.0	20.5	22.0	20.5	18.0	17.0
30	16.5	9.5	19.0	17.5	19.5	12.0	23.0	20.0	21.5	20.5	18.5	17.5
31	---	---	20.0	18.5	---	---	23.0	18.5	21.0	20.0	---	---

09163490 SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°13'18", long 108°53'32", in NE¼NW¼ sec.4, T.10 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 800 ft (240 m) downstream from bridge on Interstate Highway 70, 1.4 mi (2.3 km) west of Mack, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--436 mi² (1,129 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline Canal. Some regulation by many small detention reservoirs and stock ponds on tributaries above station and by Highline Lake, capacity, 3,400 acre-ft (4.19 hm³) on Mack Wash above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--8 years, 90.2 ft³/s (2.554 m³/s), 65,350 acre-ft/yr (80.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) Aug. 8, 1974, gage height, 5.57 ft (1.698 m), from rating curve extended above 240 ft³/s (6.8 m³/s), on basis of slope-area measurement at gage height 5.69 ft (1.734 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Jan. 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage of 5.69 ft (1.73 m) Sept. 19, 1972, from floodmarks, discharge, 1,680 ft³/s (47.6 m³/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 845 ft³/s (23.9 m³/s) at 0500 Sept. 1, gage height, 4.39 ft (1.338 m); minimum daily, 8.2 ft³/s (0.23 m³/s) Mar. 16, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	30	16	12	9.7	9.4	8.2	53	173	90	92	274
2	156	28	16	13	9.5	9.4	8.3	58	180	90	95	195
3	149	28	16	13	11	9.4	9.7	71	188	81	90	194
4	139	27	16	12	12	9.4	12	77	171	90	87	197
5	133	27	16	12	13	8.8	119	82	150	102	74	235
6	131	25	17	11	12	8.8	173	122	143	96	82	230
7	120	25	17	12	11	8.8	143	128	136	84	87	232
8	111	24	16	13	11	8.8	120	128	133	75	91	250
9	107	23	14	12	10	8.8	112	144	122	74	89	276
10	112	23	13	14	11	8.8	110	158	115	93	83	297
11	113	23	14	12	10	8.8	118	162	109	99	87	333
12	126	22	15	14	12	9.1	103	162	100	140	99	440
13	136	23	14	13	10	9.4	93	152	89	159	109	340
14	149	22	15	15	10	9.4	82	142	83	164	106	270
15	242	21	13	21	10	9.1	94	130	79	167	109	250
16	223	20	12	17	11	8.2	78	128	81	157	120	230
17	221	19	12	12	10	9.4	57	122	75	155	136	220
18	212	19	12	12	10	9.5	46	127	72	145	149	218
19	185	19	11	12	10	10	35	129	65	135	153	221
20	150	17	11	12	10	10	42	138	61	129	147	212
21	60	18	13	12	10	10	53	154	63	116	139	209
22	46	17	13	12	10	10	60	166	67	105	133	205
23	37	17	13	12	10	10	65	165	62	105	116	204
24	32	22	13	12	10	9.3	57	162	57	110	124	199
25	31	18	13	11	10	8.5	53	163	53	111	124	196
26	31	18	13	12	9.4	8.3	50	158	58	128	126	204
27	32	16	13	14	10	8.3	50	148	64	125	121	216
28	31	15	13	9.9	9.4	8.6	55	162	78	121	122	238
29	30	15	12	10	---	8.7	53	156	82	111	137	244
30	29	15	13	12	---	9.4	52	156	82	108	159	242
31	30	---	13	10	---	9.3	---	165	---	99	167	---
TOTAL	3460	636	428	390.9	292.0	283.7	2111.2	4168	2991	3564	3553	7271
MEAN	112	21.2	13.8	12.6	10.4	9.15	70.4	134	99.7	115	115	242
MAX	242	30	17	21	13	10	173	166	188	167	167	440
MIN	29	15	11	9.9	9.4	8.2	8.2	53	53	74	74	194
AC-FT	6860	1260	849	775	579	563	4190	8270	5930	7070	7050	14420

CAL YR 1980 TOTAL 35397.6 MEAN 96.7 MAX 430 MIN 7.4 AC-FT 70210
WTR YR 1981 TOTAL 29148.8 MEAN 79.9 MAX 440 MIN 8.2 AC-FT 57820

09163490 SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,760 micromhos Jan. 3, 1977; minimum, 622 micromhos Apr. 28, 1979.
WATER TEMPERATURES: Maximum, 36.5°C July 17, 1976; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 6,110 micromhos Apr. 4; minimum, 1,060 micromhos Apr. 15.
WATER TEMPERATURES: Maximum, 27.5°C June 25, 26; July 8, 10, 14; minimum, 0.0°C many days during December to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT 07...	0845	126	2200	--	7.9	12.0	9.0	850
FEB 18...	0815	10	5700	5410	7.8	2.0	11.4	2100
MAY 14...	1100	145	1600	1630	8.2	13.5	8.4	550
JUL 23...	1220	102	1600	2970	8.3	22.0	8.1	820

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	210	78	190	2.8	6.7	200	740	210	.3
FEB 18...	380	270	630	6.0	7.8	270	2800	230	.3
MAY 14...	140	48	150	2.8	4.2	150	470	160	.2
JUL 23...	210	72	160	2.4	5.2	190	710	540	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 07...	7.0	1570	2.1	534	2.1	.010	50	40
FEB 18...	11	4500	6.1	122	1.1	.030	110	140
MAY 14...	7.0	1080	1.5	423	1.2	.060	20	10
JUL 23...	10	1830	2.5	504	1.6	.050	30	10

09163490 SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	4630	4830	5240	5400	5490	5420	1570	1410	1560	1970	1520
2	1970	4700	4850	5240	5400	5460	5520	1570	1410	1540	1990	1560
3	2040	4800	4850	5250	5400	5480	5180	1540	1410	1540	2000	1570
4	2100	4900	4870	5250	5400	5450	5200	1540	1440	1560	2110	1550
5	2090	5020	4870	5240	5400	5440	2370	1540	1460	1580	2210	1520
6	2160	5100	4890	5240	5400	5490	2000	1500	1480	1570	2250	1550
7	2130	5100	4900	5250	5400	5410	1890	1470	1500	1600	2330	1550
8	2260	5100	4900	5300	5400	5470	1630	1450	1510	1670	2410	1550
9	2300	5000	4920	5300	5400	5420	1230	1460	1520	1710	2450	1540
10	2300	5000	4930	5300	5400	5470	1200	1470	1550	1780	2480	1530
11	2200	5100	4950	5300	5450	5440	1110	1500	1600	1790	2260	1550
12	2040	5100	4960	5300	5450	5400	1090	1550	1650	1750	1530	1530
13	1950	5200	4970	5300	5450	5400	1090	1610	1650	1700	1490	1530
14	1850	5200	4980	5300	5450	5480	1110	1600	1680	1680	1430	1510
15	1800	5300	4990	5300	5450	5490	1080	1590	1700	1660	1390	1510
16	2000	5300	5050	5350	5450	5320	1090	1590	1700	1690	1400	1510
17	2500	5300	5120	5350	5450	5350	1130	1570	1700	1730	1460	1520
18	2880	5200	5120	5350	5450	5450	1190	1570	1750	1780	1390	1520
19	3030	5200	5120	5350	5450	5450	1260	1550	1800	1790	1350	1530
20	3220	5100	5130	5350	5470	5380	1290	1550	1800	1800	1350	1530
21	3690	5200	5150	5350	5440	5420	1280	1550	1810	1820	1370	1520
22	3620	5200	5150	5350	5410	5450	1250	1530	1810	1850	1400	1520
23	3700	5100	5170	5350	5430	5390	1270	1510	1830	1900	1410	1520
24	3810	4760	5170	5350	5430	5330	1310	1510	1840	1900	1420	1520
25	3750	4770	5180	5350	5570	5300	1350	1510	1850	1910	1450	1520
26	3810	4800	5180	5350	5460	5350	1400	1490	1800	1910	1470	1530
27	4000	4800	5190	5400	5400	5450	1450	1480	1750	1920	1480	1530
28	4200	4790	5200	5400	5440	5390	1500	1480	1700	1930	1480	1540
29	4350	4810	5200	5400	---	5480	1520	1470	1640	1940	1480	1540
30	4430	4830	5230	5400	---	5420	1550	1460	1590	1950	1480	1550
31	4530	---	5240	5400	---	5520	---	1440	---	1950	1500	---

09163490 SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	12.5			---	---	3.5	---	6.0	---	8.5	2.5
2	18.5	13.0			---	---	4.5	---	4.0	---	5.0	2.5
3	18.0	11.5			---	---	5.0	---	3.0	---	11.0	3.0
4	18.0	11.5			---	---	6.0	1.5	---	---	9.5	4.5
5	18.0	11.5			---	---	5.5	3.0	2.5	---	9.5	2.0
6	18.0	12.0			---	---	5.0	---	---	---	7.0	4.5
7	16.0	12.5			---	---	4.0	.0	---	---	8.5	4.0
8	18.0	6.0			---	---	3.0	.0	---	---	12.0	2.0
9	18.0	---			---	---	2.0	.0	---	---	12.5	2.0
10	17.5	---			---	---	2.5	.0	5.0	---	11.5	3.5
11	17.0	---			---	---	2.5	.0	---	---	9.5	4.0
12	14.5	11.0			---	---	2.0	.0	4.0	.0	13.5	5.5
13	17.0	---			---	---	1.5	.0	6.5	---	12.0	2.5
14	15.0	---			---	---	1.0	.0	9.0	.5	12.5	3.0
15	11.5	10.0			---	---	2.0	.0	7.0	2.0	14.0	3.0
16	12.0	---			---	---	2.0	.0	8.0	1.0	11.5	3.0
17	12.0	---			5.0	2.0	6.0	1.5	8.5	1.5	12.5	4.5
18	12.0	---			5.0	.5	4.5	---	9.0	1.0	14.0	3.5
19	11.5	---			5.0	.5	4.0	---	9.0	1.5	13.0	2.5
20	12.0	---			5.0	.0	3.5	---	6.5	3.0	11.0	5.5
21	13.5	7.0			5.0	.5	3.5	---	8.0	.5	10.5	4.0
22	15.0	7.5			6.0	2.5	3.0	---	8.0	.5	15.0	3.5
23	16.0	6.0			7.0	3.0	1.5	---	9.0	.5	16.0	4.5
24	10.5	4.5			5.5	1.5	4.5	---	10.0	.5	14.5	7.5
25	10.5	4.5			6.0	1.5	2.0	---	9.0	.5	15.0	3.5
26	10.5	6.0			5.5	1.5	---	---	7.5	2.5	14.0	5.0
27	11.0	6.5			5.5	1.0	---	---	9.5	1.0	10.0	6.0
28	15.5	5.0			6.0	2.0	2.5	---	10.0	.5	9.5	5.0
29	15.5	6.0			5.5	---	6.0	---	---	---	15.5	4.5
30	15.5	7.5			4.5	---	4.0	---	---	---	8.0	4.0
31	15.5	8.0			4.0	---	4.5	---	---	---	14.0	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	3.5	23.0	12.0	23.0	15.0	21.5	19.0	27.0	18.5	22.5	12.0
2	14.5	4.0	20.5	14.0	22.5	15.5	25.0	17.0	26.5	17.0	23.0	17.0
3	9.0	6.5	18.5	13.5	21.0	16.0	24.5	17.0	26.0	17.0	23.0	17.5
4	11.5	3.5	20.5	10.5	23.5	15.0	26.5	16.5	26.0	17.0	23.5	16.5
5	12.5	4.0	20.5	11.0	24.5	15.0	27.0	17.0	26.0	15.5	19.5	17.5
6	13.0	6.5	20.5	12.5	24.5	15.0	26.5	17.0	25.5	15.5	19.0	17.0
7	12.0	7.5	18.5	10.0	23.5	16.0	26.5	18.0	25.5	16.0	21.5	16.5
8	14.5	8.0	13.0	9.5	24.0	16.0	27.5	18.5	25.0	16.5	22.0	16.5
9	16.5	7.5	19.0	8.5	24.5	16.0	26.5	19.0	25.0	17.5	22.0	17.0
10	17.5	8.5	19.5	10.0	25.5	16.0	27.5	18.5	20.5	17.5	19.5	17.5
11	16.5	9.0	18.0	11.5	25.5	16.5	26.0	19.5	19.0	16.5	21.5	16.5
12	15.0	8.5	18.5	11.0	24.0	15.5	26.0	20.5	21.0	15.5	21.0	14.5
13	18.5	9.0	20.5	9.5	22.5	15.0	25.0	20.5	22.5	15.5	22.0	17.5
14	17.5	8.5	21.0	10.5	19.5	12.5	27.5	20.5	24.0	16.5	21.5	16.5
15	18.5	12.0	17.0	12.0	21.0	10.5	27.0	20.5	23.0	17.0	21.5	16.0
16	20.0	10.0	15.0	12.0	21.5	11.5	22.0	20.0	23.5	16.5	21.5	16.0
17	20.5	11.0	16.0	11.5	22.5	12.5	25.5	19.0	24.5	16.5	21.0	15.5
18	18.0	11.0	20.5	11.0	23.0	13.0	27.0	19.0	24.0	16.5	21.0	15.0
19	17.0	11.5	19.0	12.5	23.5	14.0	26.5	18.5	24.5	16.5	20.5	15.0
20	16.5	8.5	16.5	12.5	24.5	15.0	25.5	17.0	24.5	17.0	20.5	15.0
21	15.5	8.0	16.5	10.5	25.0	15.5	25.5	17.0	19.5	16.0	21.0	16.0
22	18.5	8.5	17.0	12.0	26.0	15.5	26.5	18.0	23.5	16.0	21.0	15.5
23	19.5	8.5	20.0	11.5	25.5	16.0	26.5	18.0	24.0	16.0	20.5	15.0
24	20.0	10.0	20.5	12.5	27.0	17.0	26.5	18.5	24.0	17.0	20.5	15.5
25	20.0	10.5	19.5	14.0	27.5	16.5	26.0	18.0	24.5	16.5	19.5	15.0
26	20.0	10.0	19.5	14.0	27.5	18.0	25.0	18.0	23.0	16.5	19.0	13.5
27	17.5	11.0	22.5	15.0	26.5	18.5	25.5	16.5	24.0	18.0	19.0	13.5
28	21.0	10.5	22.5	15.5	26.5	18.5	24.5	16.5	24.5	16.5	19.0	13.5
29	21.5	10.5	20.5	15.0	27.0	17.5	26.5	16.5	24.5	17.5	19.0	14.0
30	21.5	11.5	24.0	14.5	26.5	17.5	25.5	17.0	22.0	17.5	18.5	13.5
31	---	---	23.0	16.5	---	---	26.0	16.5	23.5	17.0	---	---

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE

LOCATION.--Lat 39°07'45", long 109°01'36", in SE¼NW¼ sec.5, T.11 S., R.104 W., Mesa County, Hydrologic Unit 14010005, on right bank 0.7 mi (1.1 km) downstream from McDonald Creek, 12 mi (19 km) southwest of Mack, Colo., and 1.5 mi (2.4 km) upstream from Colorado-Utah State line.

DRAINAGE AREA.--17,843 mi^2 (46,213 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,325 ft (1,318 m), from topographic map. May 1951, to October 1979, water-stage recorder at site 5.7 mi (9.2 km) upstream at different datum.

REMARKS.--Records good, except those for periods of no gage height record, Mar. 12 to Apr. 8 and Aug. 27 to Sept. 1, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (records include all return flow from irrigated areas.)

AVERAGE DISCHARGE.--30 years, 5,719 ft^3/s (162.0 m^3/s), 4,143,000 acre-ft/yr (5,110 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft^3/s (1,610 m^3/s) June 9, 1957, gage height, 16.40 ft (4.999 m), site and datum then in use; minimum daily, 960 ft^3/s (27.2 m^3/s) Sept. 7, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft^3/s (343 m^3/s) at 0600 June 9, gage height, 5.84 ft (1.780 m); minimum daily, 1,580 ft^3/s (44.7 m^3/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3220	4460	4410	4130	3230	3200	2400	4680	9550	3500	2040	3380
2	3260	4500	4200	4230	3190	3180	2300	4800	9160	3200	1910	3220
3	3240	4460	4330	4260	3070	3200	2100	5610	8920	3380	1880	3180
4	3200	4080	4380	4240	2940	3200	1800	9380	10000	3800	1800	3080
5	3080	4650	4350	4280	2990	3200	2000	8180	9830	3650	1680	3070
6	3040	4710	4380	4180	3090	3160	2100	6390	9860	3400	1600	3310
7	2990	4770	4480	4130	3080	3060	1950	5520	10100	2940	1580	3310
8	3130	4850	4550	3970	3060	2970	1820	4670	11000	2680	1640	3400
9	3540	4850	4500	3860	3040	2940	1780	4260	11200	2420	1600	3460
10	3160	4840	4370	3850	3120	2940	1800	3920	11000	2520	1620	3670
11	3190	4820	4040	3890	3090	2920	1760	3510	10700.	2580	2020	3830
12	3230	4720	4020	3870	2770	2850	1820	3250	9720	3000	2380	3830
13	3370	4770	4100	3810	3000	2750	1920	3050	8430	3220	2700	3970
14	3630	4920	4180	3730	3180	2650	2180	2930	7080	3440	2840	3920
15	3890	4940	4140	3670	3200	2600	2100	2910	6030	3460	2780	3850
16	3950	4870	4160	3730	3210	2660	2480	2910	4900	3180	2920	3820
17	4190	4580	4370	3850	3220	2470	2940	3090	4170	3200	3020	3650
18	4300	4470	4290	3940	3220	2500	3160	3220	3680	3580	2980	3500
19	4240	4380	4270	3950	3210	2500	3360	3340	3500	3800	2840	3400
20	4270	4390	4300	3820	3180	2440	3800	3280	3340	3300	2600	3190
21	4410	4440	4280	3770	3180	2420	4380	3470	3280	2940	2420	3120
22	4290	4420	4280	3660	3180	2400	3520	3730	3480	2600	2320	3110
23	4270	4360	4310	3640	3140	2400	3280	3770	3600	2260	2220	3060
24	4190	4510	4350	3620	3120	2360	3080	3570	3440	2160	2260	3000
25	4130	4600	4340	3660	3120	2320	3020	3470	3200	2140	2300	3010
26	4150	4420	4250	3700	3140	2220	3200	3660	3020	2300	2360	2990
27	4180	4410	4350	3700	3210	2250	3620	3900	2900	2540	2300	2950
28	4250	4290	4330	3660	3250	2260	4020	4600	3160	2860	2300	2850
29	4250	4320	4310	3730	---	2340	4000	6720	3480	2740	2300	2800
30	4230	4370	4320	3350	---	2400	4120	8180	3750	2500	2400	2740
31	4610	---	4270	3290	---	2360	---	8640	---	2280	3000	---
TOTAL	117040	137170	133210	119170	87430	83120	81810	142610	195480	91570	70610	99670
MEAN	3775	4572	4297	3844	3123	2681	2727	4600	6516	2954	2278	3322
MAX	4610	4940	4550	4280	3250	3200	4380	9380	11200	3800	3020	3970
MIN	2990	4080	4020	3290	2770	2220	1760	2910	2900	2140	1580	2740
AC-FT	232100	272100	264200	236400	173400	164900	162300	282900	387700	181600	140100	197700

CAL YR 1980 TOTAL 2677730 MEAN 7316 MAX 30200 MIN 2380 AC-FT 5311000
WTR YR 1981 TOTAL 1358890 MEAN 3723 MAX 11200 MIN 1580 AC-FT 2695000

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued
(National stream-quality accounting network station)

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURES: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Water-quality data collection was moved 5.5 miles upstream to this site from previous site 09163530. Water-quality records for this site are considered to be equivalent to data obtained at old site. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,940 micromhos Aug. 13, 1981; minimum, 385 micromhos June 25, 1980.
WATER TEMPERATURE: Maximum, 27.0°C Aug. 7-9, 1981; minimum, freezing point on many days during December 1980 to February 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE; Maximum, 1,940 micromhos Aug. 13; minimum, 525 micromhos June 6.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 7-9; minimum, 1.5°C Feb. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT										
06...	1200	2920	1350	1382	7.8	15.5	4.3	7.9	3.4	140
NOV										
10...	1130	5060	1080	1063	7.8	6.5	20	9.6	1.4	240
DEC										
16...	0915	4270	880	1070	7.6	3.0	2.4	11.5	1.6	--
JAN										
06...	0945	4010	960	1030	7.6	4.0	2.5	11.1	1.7	47
FEB										
17...	0930	1150	1150	1160	7.5	5.5	2.3	10.7	1.3	<1
MAR										
11...	0915	2770	1200	1260	7.8	8.0	5.5	10.2	2.0	56
APR										
08...	0945	1810	1400	1500	7.7	11.0	90	9.4	3.5	60
MAY										
04...	1015	10300	700	750	7.5	14.0	410	7.2	3.3	1400
JUN										
03...	0930	9410	720	681	7.7	17.0	74	7.3	2.9	480
JUL										
07...	0805	2920	1200	1280	8.0	24.0	83	6.8	2.9	>800
AUG										
04...	0840	1780	1600	1670	8.3	23.5	53	7.2	4.2	490
26...	1200	708	1562	--	8.1	20.3	--	6.6	--	--
SEP										
01...	0945	3440	1550	1810	7.8	19.0	8500	5.5	3.7	800

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT										
06...	360	460	120	38	120	2.4	4.8	150	400	100
NOV										
10...	100	330	88	29	83	2.0	4.0	150	270	80
DEC										
16...	--	340	86	31	100	2.4	4.8	140	260	87
JAN										
06...	--	300	77	27	95	2.4	3.2	140	260	93
FEB										
17...	<1	350	89	32	120	2.8	4.2	150	270	120
MAR										
11...	K9	360	90	34	130	3.0	3.9	140	290	130
APR										
08...	450	440	110	40	150	3.1	5.7	150	410	150
MAY										
04...	1600	250	66	20	61	1.7	3.1	98	200	47
JUN										
03...	--	250	68	19	50	1.4	2.2	100	170	41
JUL										
07...	>800	460	120	38	100	2.0	4.2	150	400	92
AUG										
04...	520	590	154	51	140	2.7	5.0	170	550	130
26...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	--	630	164	54	170	3.2	7.7	170	670	120

K BASED ON NON-IDEAL COLONY COUNT.

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
06...	.4	7.9	966	894	7620	--	2.8	.010	.000	1.1
NOV										
10...	.3	9.8	686	655	9370	.59	.61	.150	.150	.95
DEC										
16...	.3	10	682	667	7860	.67	.89	.060	.090	.65
JAN										
06...	.3	9.4	664	652	7190	.70	.72	.070	.070	1.5
FEB										
17...	.3	9.5	747	738	2320	.66	.65	.100	.110	.60
MAR										
11...	.3	9.0	617	776	6110	.67	1.1	.120	.130	.72
APR										
08...	.4	9.1	974	971	4760	1.1	1.3	.090	.090	--
MAY										
04...	.3	9.1	558	472	15500	.72	1.5	.280	--	1.9
JUN										
03...	.2	9.3	435	428	11100	.58	1.8	.460	.130	.84
JUL										
07...	.3	12	891	863	7030	1.3	1.5	.100	.130	1.5
AUG										
04...	.5	10	1250	1160	6010	1.8	2.0	.200	.280	1.1
26...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.4	11	1360	1310	12600	1.9	2.1	.620	.410	5.9

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT										
06...	.55	1.10	.55	--	.030	.000	--	6.0	.1	--
NOV										
10...	.62	1.10	.77	1.7	.060	.040	9.8	--	--	520
DEC										
16...	.64	.71	.73	1.4	.060	.030	4.6	--	--	--
JAN										
06...	.91	1.60	.98	2.3	.030	.020	9.3	--	--	--
FEB										
17...	.58	.70	.69	1.4	.100	.090	4.8	--	--	--
MAR										
11...	.74	.84	.87	1.5	.000	.000	--	7.3	.3	570
APR										
08...	2.1	--	2.2	--	.210	.090	17	--	--	--
MAY										
04...	--	2.20	1.8	2.9	.510	.060	23	--	--	--
JUN										
03...	.97	1.30	1.1	1.9	.100	.040	--	5.8	--	8800
JUL										
07...	1.3	1.60	1.4	2.9	.200	.050	5.7	--	--	4100
AUG										
04...	1.9	1.30	2.2	3.1	.180	.090	--	10	.8	14000
26...	--	--	--	--	--	--	--	--	--	1400
SEP										
01...	1.2	6.50	1.6	8.4	.410	.030	130	--	--	2100

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT									
06...	1200	2	2	100	50	1	4	10	20
MAR									
11...	0915	2	1	100	60	12	<1	0	0
JUN									
03...	0930	2	1	100	50	4	<1	10	10
AUG									
04...	0840	2	2	100	8	1	9	10	10

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT 06...	0	<3	18	8	280	60	12	7	70
MAR 11...	2	<3	5	4	210	30	20	2	40
JUN 03...	2	<3	14	4	3200	30	8	0	140
AUG 04...	2	<3	7	10	1300	44	5	5	70

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 06...	8	.1	.0	10	10	0	0	30	10
MAR 11...	30	.1	.0	8	7	0	0	10	20
JUN 03...	6	.2	.0	4	5	1	1	50	30
AUG 04...	4	.1	.0	20	16	0	0	60	<3

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 06...	1400	2920	32	252	--
NOV 10...	1130	5060	48	656	--
DEC 16...	1300	4270	29	334	--
APR 08...	1245	1810	155	757	--
AUG 04...	1214	1780	145	697	86
SEP 01...	1230	3440	20600	191000	99

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1140	1060	959	1090	1120	1490	798	667	1220	1520	1550
2	1280	1140	1060	953	1070	1110	1500	723	631	1250	1570	1530
3	1290	1130	1050	971	1080	1120	1460	676	705	1250	1630	1520
4	1310	1140	1030	977	1100	1120	1700	703	662	1240	1660	1500
5	1330	1170	1020	983	1110	1130	1610	733	606	1220	1640	1490
6	1370	1140	1010	990	1140	1130	1580	717	543	1220	1650	1470
7	1390	1110	1000	995	1150	1150	1580	690	558	1220	1710	1460
8	1380	1100	1010	989	1140	1180	1480	724	572	1180	1760	1440
9	1350	1100	1000	975	1140	1220	1460	758	585	1180	1770	1430
10	1300	1080	997	991	1140	1230	1430	796	608	1180	1780	1420
11	1310	1020	995	969	1150	1230	1430	834	634	1160	1800	1400
12	1380	1000	989	971	1190	1230	1400	866	666	1220	1750	1390
13	1380	1000	970	959	1180	1230	1380	901	710	1310	1860	1370
14	1370	997	982	956	1170	1240	1350	936	773	1160	1680	1360
15	1480	991	992	957	1200	1250	1310	964	836	1120	1610	1340
16	1510	927	977	963	1190	1220	1240	987	912	1080	1570	1330
17	1480	987	974	974	1190	1250	1160	983	991	1080	1560	1310
18	1440	1030	965	976	1160	1260	1070	990	1030	1050	1500	1230
19	1410	1060	951	966	1140	1260	1010	995	1030	1110	1450	1230
20	1410	1090	954	947	1140	1250	969	1000	1040	1280	1400	1240
21	1390	1120	927	948	1150	1250	913	1010	1050	1310	1380	1240
22	1360	1140	927	966	1130	1260	951	1000	1040	1330	1390	1250
23	1370	1120	922	972	1130	1270	1030	999	1020	1360	1430	1260
24	1380	1110	918	982	1120	1310	1030	988	997	1440	1460	1260
25	1370	1110	917	990	1120	1350	1060	985	1000	1510	1490	1280
26	1380	1100	923	997	1120	1360	1080	997	1020	1550	1500	1290
27	1340	1090	917	996	1130	1380	1040	1000	1070	1510	1510	1290
28	1300	1080	935	986	1100	1420	982	993	1110	1540	1520	1300
29	1310	1070	941	977	---	1440	886	952	1140	1400	1540	1310
30	1300	1060	947	1030	---	1460	844	859	1190	1380	1550	1330
31	1230	---	935	1090	---	1470	---	748	---	1430	1560	---

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.0	8.5	7.0	5.0	3.5	---	---	4.5	3.5	8.0	7.0
2	19.5	17.5	8.5	7.0	5.5	4.0	---	---	4.0	2.5	7.5	7.0
3	19.0	16.5	8.5	7.0	6.0	5.0	---	---	3.5	2.0	8.5	6.5
4	18.5	16.0	8.5	7.5	6.5	5.5	---	---	3.5	2.0	8.5	7.5
5	18.0	16.0	9.0	7.5	7.5	6.0	---	---	3.5	2.0	8.5	7.0
6	17.0	16.0	9.5	8.0	7.0	6.0	5.5	4.5	4.0	2.5	8.5	7.5
7	17.0	15.0	9.5	8.5	6.5	5.5	4.5	3.5	4.0	2.5	8.5	7.0
8	17.0	15.0	9.5	8.0	7.0	6.0	4.5	4.0	3.5	2.5	9.0	7.0
9	17.0	15.0	10.0	8.5	6.5	5.5	4.0	3.0	4.0	3.0	9.5	7.5
10	16.5	15.0	9.0	8.0	5.5	4.5	4.0	2.5	4.0	3.0	9.5	8.0
11	16.0	14.5	9.0	8.0	5.0	3.5	4.0	2.5	2.5	2.0	9.5	8.5
12	15.0	13.5	9.0	8.0	4.5	3.5	4.0	3.0	3.0	1.5	10.5	8.5
13	15.5	13.5	9.0	8.5	4.5	3.0	3.5	2.5	4.0	2.5	10.5	8.5
14	14.5	13.0	8.5	7.5	4.0	3.0	3.5	2.0	5.5	3.5	10.5	8.5
15	13.0	11.5	7.5	6.0	4.5	3.5	3.5	2.5	6.0	4.5	11.5	9.0
16	11.0	10.0	6.0	5.0	5.0	3.5	3.5	2.5	6.5	5.0	11.5	9.0
17	11.0	9.0	4.5	3.5	5.0	4.0	4.5	3.5	7.0	6.0	11.0	9.0
18	10.0	8.5	4.0	2.5	5.5	4.0	4.0	3.0	7.5	6.0	11.5	9.0
19	10.5	8.5	4.0	2.5	5.5	4.5	4.5	3.0	8.0	6.5	11.5	9.5
20	10.5	8.5	4.5	3.0	5.5	4.5	4.5	3.0	7.5	7.0	11.5	9.5
21	11.0	9.0	4.5	3.0	5.5	4.5	4.5	3.0	7.0	5.5	10.5	8.5
22	11.0	3.0	4.0	3.0	6.0	5.0	4.5	3.0	7.0	5.0	11.5	8.5
23	10.0	8.5	4.5	3.5	7.0	5.5	4.0	3.0	7.0	5.0	13.5	9.5
24	9.0	7.5	5.0	4.0	6.5	5.5	4.5	3.0	8.0	6.0	13.5	11.5
25	8.0	7.5	5.0	4.0	6.5	5.5	4.5	3.5	8.0	6.5	14.0	10.5
26	8.0	7.0	5.0	4.0	---	---	4.0	3.0	8.0	7.0	14.5	11.0
27	7.5	7.0	4.5	3.5	---	---	4.0	3.0	8.0	6.5	13.5	10.0
28	7.0	6.0	4.5	3.0	---	---	4.0	3.0	8.0	6.5	11.5	9.5
29	7.0	6.0	4.0	3.0	---	---	5.0	3.5	---	---	13.0	9.0
30	7.5	6.0	4.5	3.5	---	---	5.5	4.5	---	---	12.0	9.0
31	7.5	6.0	---	---	---	---	4.5	4.0	---	---	12.0	8.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	9.0	19.5	17.5	18.0	16.0	22.5	21.5	25.5	22.5	---	---
2	14.0	9.5	19.0	17.5	18.5	16.5	23.5	21.0	26.0	22.5	---	---
3	11.5	6.5	17.5	15.5	18.5	17.0	24.5	22.0	26.0	22.5	---	---
4	12.5	3.0	15.5	14.0	18.5	17.0	24.5	22.5	26.0	22.0	---	---
5	13.5	8.0	15.5	13.5	19.5	17.0	24.5	22.5	26.0	22.0	---	---
6	15.5	9.0	15.5	14.0	20.0	18.0	25.0	23.0	26.5	21.5	---	---
7	15.0	10.0	15.0	13.0	20.0	18.0	25.5	23.5	27.0	20.5	---	---
8	15.5	9.5	14.0	12.0	20.0	18.0	26.5	23.5	27.0	22.0	---	---
9	17.5	11.5	14.0	11.5	19.5	18.0	25.5	24.0	27.0	21.5	---	---
10	19.5	14.0	15.5	13.0	20.0	18.0	25.5	23.0	23.5	20.5	---	---
11	19.0	13.0	15.5	14.5	20.5	18.5	26.5	24.0	20.5	19.5	---	---
12	18.5	14.5	16.0	14.0	20.0	18.0	25.0	23.5	21.0	19.0	---	---
13	18.5	14.0	16.0	13.0	19.5	17.5	24.5	23.0	21.0	19.0	---	---
14	18.5	15.5	17.0	14.0	18.5	16.0	25.5	23.0	22.5	20.0	---	---
15	18.5	15.5	16.5	15.0	16.5	15.0	25.5	23.5	22.5	21.5	---	---
16	19.0	15.5	15.5	14.5	17.5	16.0	24.0	22.0	22.5	20.0	---	---
17	20.0	17.5	15.0	13.5	19.0	17.0	23.5	21.5	23.0	21.0	16.5	15.0
18	19.5	17.5	17.0	13.5	20.0	18.0	23.5	21.5	23.0	21.0	16.0	14.0
19	18.0	16.5	18.0	16.0	21.0	18.5	24.0	22.5	23.0	21.5	15.5	14.0
20	17.5	15.5	16.5	15.0	22.0	20.0	23.5	22.0	23.0	21.0	16.0	14.0
21	16.5	15.0	15.5	14.0	23.0	20.5	24.0	22.0	22.0	20.0	16.5	14.5
22	16.0	14.0	15.5	14.0	24.0	21.0	25.0	22.5	21.5	19.5	16.5	15.0
23	16.5	13.5	17.5	14.5	24.0	22.0	25.5	23.0	22.5	20.5	16.5	14.5
24	17.5	14.5	18.5	16.0	24.5	22.0	25.0	21.5	23.5	21.0	16.5	14.5
25	18.5	15.5	18.5	17.0	25.5	22.5	24.5	21.0	23.5	21.0	16.0	14.5
26	18.0	15.5	19.0	17.5	25.5	23.0	23.5	21.0	23.5	21.0	15.0	13.5
27	18.0	16.0	19.5	17.0	25.0	23.0	23.0	20.0	23.5	21.5	15.0	13.0
28	18.0	15.5	20.0	18.5	25.0	22.5	23.5	21.0	24.0	21.5	15.0	13.0
29	18.0	16.0	20.0	17.5	23.5	22.0	24.0	21.5	23.5	21.5	15.5	14.0
30	19.0	16.5	20.0	17.5	24.0	22.0	23.5	21.5	22.5	20.5	15.5	14.0
31	---	---	19.5	17.5	---	---	24.5	21.5	21.5	19.5	---	---

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE
PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAR 11,81		MAY 4,81		JUN 3,81		JUL 7,81	
TIME	0915		1015		0930		0805	
TOTAL CELLS/ML	570		13000		8800		4100	
DIVERSITY: DIVISION	0.3		0.3		1.1		0.8	
.CLASS	0.3		0.3		1.1		0.8	
..ORDER	1.1		0.5		1.3		1.6	
...FAMILY	2.5		2.7		3.1		2.2	
....GENUS	2.6		2.8		3.4		2.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	34	1
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	170	4
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	34	1
....CHODATELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	120	3
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	810#	20
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	710	8	1600#	39
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	270	7
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	13	2	--	-	--	-	150	4
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	150#	27	190	1	120	1	450	11
....MELOSIRA	--	-	--	-	240	3	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	*	0
....COCCONEIS	--	-	96	1	59	1	*	0
....RHOICOSPHENIA	--	-	1600	12	650	7	--	-
...CYMBELLACEAE								
....CYMBELLA	64	11	3000#	23	950	11	--	-
....EPITHEMIA	--	-	96	1	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	13	2	960	7	410	5	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	52	9	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	240	3	--	-
....SYNEDRA	13	2	190	1	--	-	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	770	6	360	4	--	-
...NAVICULACEAE								
....FRUSTULIA	--	-	--	-	120	1	--	-
....NAVICULA	150#	27	4400#	34	2000#	23	84	2
....NEIDIUM	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	90#	16	480	4	830	9	340	8
...SURIRELLACEAE								
....SURIRELLA	--	-	480	4	240	3	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	13	2	--	-	--	-	*	0
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	890	10	--	-
....OSCILLATORIA	--	-	--	-	1000	11	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	860	7	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE
PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	AUG 4,81	AUG 26,81	SEP 1,81
TIME	0840	1200	0945
TOTAL CELLS/ML	14000	1400	2100
DIVERSITY: DIVISION	1.1	1.0	0.6
.CLASS	1.1	1.0	0.6
..ORDER	1.9	1.1	1.0
...FAMILY	2.4	2.4	1.9
....GENUS	3.0	2.7	1.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	14	1	--	-
...COELASTRACEAE						
....COELASTRUM	--	-	170	13	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	170	1	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	670	5	87	6	--	-
....CHODATELLA	170	1	--	-	--	-
....OOCYSTIS	83	1	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	1300	9	58	4	--	-
....CRUCIGENIA	330	2	--	-	--	-
....SCENEDESMUS	1500	11	400#	29	82	4
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	29	2	--	-
....CHLAMYDOMONAS	1500	11	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	4800#	34	--	-	210	10
....MELOSIRA	500	4	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	83	1	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	41	2
....EPITHEMIA	--	-	--	-	--	-
....RHOPALODIA	--	-	14	1	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	72	5	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	83	1	14	1	--	-
...NAVICULACEAE						
....FRUSTULIA	--	-	--	-	--	-
....NAVICULA	330	2	58	4	720#	34
....NEIDIUM	--	-	14	1	--	-
...NITZSCHIACEAE						
....NITZSCHIA	2300#	17	450#	32	970#	45
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	83	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	83	1	--	-	--	-
..HORMOGONALES						
...OSCILLATORIACEAE						
....LYNGBYA	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	120	6

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 20 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations of these diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09022500 Moffat water tunnel diverts water from tributaries of Williams Fork (via August P. Gumlick and Vasquez tunnels, beginning in 1959) between headgates (in secs.20 and 29, T.3 S., R.76 W.) and west portal of August P. Gumlick tunnel (in sec.28, T.3 S., R.76 W.) and from the main stem and tributaries of Fraser River between headgates (in sec.8, T.2 S., R.76 W., and sec.24, T.1 S., R.75 W.) and west portal of Moffat tunnel (in sec.11, T.2 S., R.75 W.), in Colorado River basin, to South Boulder Creek, in sec.2, T.2 S., R.74 W., in Platte River basin. (See sta. 09036000 for diversions by August P. Gumlick tunnel.)

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09061500 Columbine ditch diverts water from tributaries of Eagle River in sec.5, T.8 S., R.79 W., in Colorado River basin to Chalk Creek (tributary to East Fork Arkansas River) in NW¼ sec.9, T.8 S., R.79 W., in Arkansas River basin.

09062000 Ewing ditch diverts water from Piney Creek in sec.11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec.11, T.8 S., R.80 W., in Arkansas River basin.

09062500 Wurtz ditch diverts water from tributaries of Eagle River between headgate in sec.32, T.7 S., R.80 W., and Tennessee Pass, in Colorado River basin, to West Tennessee Creek (tributary to Tennessee Creek) in sec.17, T.8 S., R.80 W., in Arkansas River basin.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09073000 Twin Lakes tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.2, T.11 S., R.83 W.), and west portal of Twin Lakes tunnel (in sec.24, T.11 S., R.83 W), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

09077160 Charles H. Boustead Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19", and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec.20, T.9 S., R.81 W., in Arkansas River basin.

09115000 Larkspur ditch diverts water from tributaries of Tomichi Creek between headgates (in sec.11, T.48 N., R.6 E., and sec.1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE¼ sec.24, T.48 N., R.6 E., in Arkansas River basin.

09118200 Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW¼ sec.18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Saguache Creek (tributary to Middle Fork Saguache Creek) in NE¼ sec.18, T.43 N., R.2 E., in Rio Grande Basin. All records available prior to October 1960 published in WSP 1733.

REVISIONS (WATER YEARS).--WSP 1733: 1949-51.

09121000 Tabor ditch diverts water from tributaries of Cebolla Creek in secs.29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek (tributary to North Clear Creek) in sec.35, T.43 N., R.3 W., in Rio Grande basin.

09341000 Treasure Pass diversion ditch diverts water from tributaries of Wolf Creek between headgates (in sec.31, T.38 N., R.2 E., and sec.6, T.37 N., R.3 E.), and Wolf Creek Pass, in San Juan River basin, to tributary of South Fork Rio Grande in sec.31, T.38 N., R.2 E., in Rio Grande basin.

09347000 Don La Font ditches 1 and 2 divert water from tributaries of Piedra River between headgates in NW¼ sec.4, T.38 N., R.1 W., and SW¼ sec.33, T.39 N., R.1 W.), and Piedra Pass, in San Juan River basin, to South River in sec.4, T.38 N., R.1 W., in Rio Grande basin.

09351000 Pine River-Weminuche Pass ditch diverts water from North Fork Los Pinos River (tributary to Los Pinos River) in sec.4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

09351500 Weminuche Pass ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec.5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
TO PLATTE RIVER BASIN													
09010000 Grand River ditch...	0	0	0	0	0	0	69	1,600	8,210	3,160	650	22	13,700
09013000 Alva B. Adams tunnel	15,170	18,140	16,630	24,370	27,060	23,570	16,210	17,070	14,360	28,160	27,880	24,140	252,800
09021500 Berthoud Pass ditch.	0	0	0	0	0	0	0	15	323	116	22	0	463
09022500 Moffat water tunnel.	853	906	761	491	373	411	1,690	7,080	27,160	8,140	2,640	3,420	53,920
09050590 Harold D. Roberts tunnel............	13,600	9,150	6,110	9,080	6,700	3,310	0	12,690	15,530	14,700	14,920	4,410	110,200
Total......................	29,620	28,200	23,500	33,940	34,130	27,290	17,970	38,440	65,580	54,280	46,110	31,990	431,050
TO ARKANSAS RIVER BASIN													
09042000 Hoosier Pass tunnel.	0	0	0	0	0	0	40	733	3,100	745	774	257	5,650
09061500 Columbine ditch.....	0	0	0	0	0	0	3.8	173	629	85	30	0	921
09062000 Ewing ditch.........	0	0	0	0	0	0	21	81	155	79	50	43	428
09062500 Wurtz ditch.........	0	0	0	0	0	0	23	314	453	61	0	0	851
09063700 Homestake tunnel....	0	0	270	6,140	5,550	9,110	218	0	0	0	0	0	21,290
09073000 Twin Lakes tunnel...	122	12	23	26	22	24	527	5,640	19,490	5,140	1,720	1,580	34,330
09077160 Charles H. Boustead Tunnel............	0	0	0	0	0	0	583	8,100	23,500	2,000	0	0	34,180
09077500 Busk-Ivanhoe tunnel.	28	83	0	0	0	0	89	717	2,750	484	204	204	4,560
09115000 Larkspur ditch......	18	0	0	0	0	0	0	0	42	72	13	0	127
Total......................	150	95	296	6,170	5,570	9,130	1,500	15,760	50,120	8,670	2,790	2,080	102,330
TO RIO GRANDE BASIN													
09118200 Tarbell ditch.......	0	0	0	0	0	0	0	23	48	97	95	28	291
09121000 Tabor ditch.........	0	0	0	0	0	0	35	124	201	175	136	0	671
09341000 Treasure Pass diversion ditch........	0	0	0	0	0	0	1.7	17	202	12	0	0	233
09347000 Don La Font ditches No. 1 and 2.......	0	0	0	0	0	0	0	0	135	42	35	2.8	215
09351000 Pine River-Weminuche Pass ditch........	0	0	0	0	0	0	0	108	182	71	0	0	361
09351500 Weminuche Pass ditch	0	0	0	0	0	0	0	511	1,090	378	0	0	1,980
Total......................	0	0	0	0	0	0	37	783	1,860	775	266	31	3,750
Grand Total................	29,770	28,300	23,800	40,110	39,700	36,420	19,510	54,980	117,560	63,720	49,170	34,100	537,130

NOTE: Due to method of computing water year figures and rounding procedures, totals do not agree.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and discharge at crest-stage stations; and the third is a table containing discharge measurements made at miscellaneous sites for both low flow and high flow are given in a fourth table.

LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1981

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn.	0.76	1965-81	10-09-81	0.01
					11-25-80	0.03
					6-02-81	3.69
					6-24-81	0.23
					7-29-81	0.05
					9-01-81	0.04

*Also a crest-stage partial-record station.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1981

						Annual maximum		
Station number	Station name	Location	Total drainage area (mi²)	Non-contributing	Period of record	Date	Gage height (feet)	Discharge (ft³/s)
		PINEY RIVER BASIN						
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn.	0.76	-	1965-81	6-02-81	2.04	3.69
		ROCK CREEK BASIN						
09060500a	Rock Creek near Toponas, CO	Lat 40°02'28", long 106°39'19", in NW¼ sec.24, T.1 N., R.83 W., Routt County, on right bank 0.1 mi (0.2 km) upstream from Horse Creek, 0.8 mi (1.3 km) downstream from Shoe and Stocking Creek, and 8 mi (13 km) east of Toponas.	47.6	-	1981	4-13-81 6-23-81 7-29-81 9-11-81	3.76 1.91 1.81 1.88	15.8 9.8 4.8 7.7
		COLORADO RIVER BASIN						
09061450	Sweetwater Creek at mouth near Dotsero, CO	Lat 39°43'20", long 107°02'22", in NW¼NE¼ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi (8.5 km) north of Dotsero.	105	-	1979 1980 1981	5-14-79 5-23-80 (b)	9.65 9.84 8.38	97 129 142
09091100	Mamm Creek near Silt, CO	Lat 39°31'54", long 107°42'48", in NW¼NW¼ sec.18, T.6 S., R.92 W., Garfield County, 3.3 mi (5.3 km) southeast of Silt.	63.3	-	1979-81	1980b 1981b	11.27 11.20	157 146
		GUNNISON RIVER BASIN						
09149450	Dry Creek near Olathe, CO	Lat 38°33'19", long 108°02'43", in SW¼NE¼ sec.36, T.50 N., R.11 W., Montrose County, 4.9 mi (7.9 km) southwest of Olathe.	102	-	1979-81	1981b	2.24	115

* Also a low-flow partial-record station.
a Continuous record station.
b Not determined.

During October 1978, a series of streamflow gain and loss measurements were made on several tributaries of the Gunnison and Dolores River basins, as part of a special study. In addition to discharge measurements, field observations of water temperature and specific conductance were often obtained.

Stream	Tributary to	Location	Date	Discharge (ft³/s)	Temperature (°C)	Specific conductance
		GUNNISON RIVER BASIN				
East Muddy Creek---------	Muddy Creek---------	Lat 39°06'20", long 107°24'21"	10-18-78	5.38	11.5	-
East Muddy Creek---------	Muddy Creek---------	Lat 39°04'38", long 107°22'12"	10-18-78	6.22	10.5	-
East Muddy Creek---------	Muddy Creek---------	Lat 39°00'02", long 107°21'26"	10-18-78	12.7	10.0	-
West Muddy Creek---------	Muddy Creek---------	Lat 39°00'02", long 107°21'52"	10-18-78	2.68	9.0	-
Anthracite Creek---------	North Fork Gunnison River.	Lat 38°55'39", long 107°20'23"	10-17-78	22.9	11.0	-
Coal Creek---------------	Anthracite Creek----	Lat 38°50'39", long 107°19'05"	10-16-78	17.2	8.5	110
Coal Creek---------------	Anthracite Creek----	Lat 38°55'36", long 107°20'22"	10-16-78	16.4	10.0	123
North Fork Gunnison River.	Gunnison River------	Lat 38°56'25", long 107°21'43"	10-16-78	55.9	-	-
Hubbard Creek------------	North Fork Gunnison River.	Lat 38°59'22", long 107°31'49"	10-16-78	.77	3.0	265
Hubbard Creek------------	North Fork Gunnison River.	Lat 38°56'40", long 107°31'05"	10-16-78	.93	10.0	380
Terror Creek-------------	North Fork Gunnison River.	Lat 38°58'23", long 107°34'13"	10-17-78	2.89	9.5	-
West Fork Terror Creek.	Terror Creek--------	Lat 38°57'35", long 107°36'39"	10-16-78	.44	8.0	140
Terror Creek-------------	North Fork Gunnison River.	Lat 38°54'24", long 107°36'39"	10-16-78	.03	13.5	1,290
North Fork Gunnison River.	Gunnison River------	Lat 38°51'33", long 107°36'39"	10-16-78	23.2	15.0	280
Minnesota Creek----------	North Fork Gunnison River.	Lat 38°51'33", long 107°29'10"	10-17-78	3.26	10.0	-
Dry Fork-----------------	Minnesota Creek-----	Lat 38°52'20", long 107°29'35"	10-17-78	.50	-	-
Minnesota Creek----------	North Fork Gunnison River.	Lat 38°52'16", long 107°30'31"	10-17-78	2.70	11.0	-
Minnesota Creek----------	North Fork Gunnison River.	Lat 38°51'44", long 107°32'27"	10-17-78	.18	13.0	-
Cottonwood Creek---------	North Fork Gunnison River.	Lat 38°44'47", long 107°36'15"	10-17-78	.93	9.5	1,200
Cottonwood Creek---------	North Fork Gunnison River.	Lat 38°46'23", long 107°39'58"	10-17-78	5.34	8.0	2,200
North Fork Gunnison River.	Gunnison River------	Lat 38°47'30", long 107°43'30"	10-17-78	65.4	15.5	1,700
Leroux Creek-------------	North Fork Gunnison River.	Lat 38°57'51", long 107°44'08"	10-18-78	5.80	5.0	155

Stream	Tributary to	Location	Date	Discharge (ft³/s)	Temperature (°C)	Specific conductance
		GUNNISON RIVER BASIN				
Leroux Creek	North Fork Gunnison River.	Lat 38°55'23", long 107°47'35"	10-18-78	12.4	8.5	140
Leroux Creek	North Fork Gunnison River.	Lat 38°45'43", long 107°44'40"	10-18-78	5.47	12.5	1,280
North Fork Gunnison River.	Gunnison River	Lat 38°46'16", long 107°46'11"	10-17-78	99.9	15.0	1,100
North Fork Gunnison River.	Gunnison River	Lat 38°47'05", long 107°50'00"	10-17-78	12.2	14.5	1,850
Smith Fork	Gunnison River	Lat 38°42'03", long 107°36'11"	10-17-78	1.60	11.5	1,200
Smith Fork	Gunnison River	Lat 38°44'01", long 107°46'08"	10-17-78	2.24	14.5	2,600
Smith Fork	Gunnison River	Lat 38°44'09", long 107°48'40"	10-17-78	3.94	13.0	3,200
San Miguel River	Dolores River	Lat 37°56'49", long 107°55'09"	10-12-78	35.5	4.0	515
San Miguel River	Dolores River	Lat 37°58'01", long 107°58'06"	10-12-78	48.2	6.0	480
Fall Creek	San Miguel River	Lat 37°55'08", long 108°03'01"	10-12-78	1.82	8.0	335
Fall Creek	San Miguel River	Lat 37°57'30", long 108°02'18"	10-12-78	3.44	6.0	400
Fall Creek	San Miguel River	Lat 37°59'24", long 108°01'24"	10-12-78	3.45	9.0	420
Leopard Creek	San Miguel River	Lat 38°05'59", long 107°54'46"	10-13-78	0.31	4.0	285
Leopard Creek	San Miguel River	Lat 38°03'37", long 108°01'36"	10-13-78	1.97	4.0	400
San Miguel River	Dolores River	Lat 38°03'42", long 108°09'25"	10-12-78	55.3	12.0	440
San Miguel River	Dolores River	Lat 38°06'19", long 108°11'12"	10-11-78	48.1	11.0	460
Beaver Creek	San Miguel River	Lat 38°04'34", long 108°12'51"	10-11-78	0.29	6.0	280
Beaver Creek	San Miguel River	Lat 38°06'20", long 108°11'17"	10-11-78	0.09	12.0	520
San Miguel River	Dolores River	Lat 38°12'50", long 108°20'40"	10-12-78	3.38	9.0	410
San Miguel River	Dolores River	Lat 38°15'09", long 108°23'17"	10-12-78	4.44	11.5	460
Cottonwood Creek	San Miguel River	Lat 38°16'07", long 108°20'10"	10-12-78	0	-	-
Cottonwood Creek	San Miguel River	Lat 38°16'29", long 108°22'27"	10-12-78	.23	9.0	1100

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1979

Stream	Tributary to	Location	Date	Discharge (ft^3/s)	Temperature (°C)	Specific conductance
		GUNNISON RIVER BASIN				
Naturita Creek-----------	San Miguel River----	Lat 38°08'54", long 108°20'04"	10-11-78	.53	14.5	2950
Naturita Creek-----------	San Miguel River----	Lat 38°09'35", long 108°24'09"	10-11-78	.54	14.0	1650
Naturita Creek-----------	San Miguel River----	Lat 38°13'27", long 108°30'16"	10-11-78	.14	15.0	2900
San Miguel River---------	Dolores River-------	Lat 38°15'55", long 108°38'22"	10-12-78	22.6	15.5	1800
San Miguel River---------	Dolores River-------	Lat 38°19'06", long 108°41'07"	10-12-78	28.6	19.0	1720
San Miguel River---------	Dolores River-------	Lat 38°23'07", long 108°45'26"	10-13-78	24.1	13.0	1700

09010500 - COLORADO R BELOW BAKER GULCH, NR GRAND LAKE, CO. (LAT 40 19 33 LONG 105 51 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	1625	68	11.0	29...	1555	70	10.0
NOV				MAY			
12...	1510	95	3.0	27...	1215	90	8.0
DEC				JUN			
11...	1145	64	.5	24...	1150	72	13.5
JAN , 1981				JUL			
15...	1200	94	.0	28...	1210	76	14.0
FEB				AUG			
25...	1600	--	.0	31...	1840	80	13.0
MAR							
31...	1430	85	.5				

09011000 - COLORADO RIVER NEAR GRAND LAKE, CO. (LAT 40 13 08 LONG 105 51 25)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	1430	80	10.5	29...	1230	65	--
NOV				MAY			
12...	1300	100	4.5	27...	1410	70	12.5
DEC				JUN			
11...	1415	77	.5	24...	1400	106	17.5
JAN , 1981				JUL			
14...	1440	112	.5	29...	1300	85	16.0
FEB				AUG			
25...	1230	100	.5	31...	1520	90	15.0
APR							
01...	1100	90	1.0				

09019000 - COLORADO RIVER BELOW LAKE GRANBY, CO. (LAT 40 08 39 LONG 105 52 00)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1145	52	9.0	30...	1045	63	5.0
NOV				MAY			
13...	1110	75	8.0	28...	0935	63	6.0
DEC				JUN			
11...	1555	41	4.5	23...	1600	74	7.0
JAN , 1981				JUL			
14...	1045	65	4.0	28...	1600	63	8.0
FEB				AUG			
25...	0900	60	4.0	31...	1235	65	9.0
MAR							
31...	1635	60	4.0				

09019500 - COLORADO RIVER NEAR GRANBY, CO. (LAT 40 07 15 LONG 105 54 00)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				JUN , 1981			
08...	1325	70	11.5	24...	1510	70	17.0
APR , 1981				JUL			
30...	1145	75	7.5	28...	1500	73	19.0
MAY				AUG			
28...	1110	75	10.0	31...	1110	80	13.0

09021000 - WILLOW CREEK BELOW WILLOW CREEK RESERVOIR, CO. (LAT 40 08 45 LONG 105 56 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1110	110	12.5	29...	1750	70	7.0
NOV				MAY			
13...	1230	140	6.0	27...	1600	115	8.0
DEC				JUN			
10...	1515	--	2.0	23...	1355	106	9.5
JAN , 1981				JUL			
14...	1145	130	3.5	29...	1330	109	15.0
FEB				AUG			
25...	0955	130	3.5	31...	1305	140	26.5
APR							
01...	0915	130	5.0				

09024000 - FRASER RIVER NEAR WINTER PARK, CO. (LAT 39 54 00 LONG 105 46 34)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1330	67	9.0	18...	1145	95	4.0
NOV				JUN			
04...	0850	85	3.0	08...	1200	48	10.0
DEC				29...	1115	80	12.0
10...	1010	--	.0	JUL			
JAN , 1981				28...	1100	80	12.0
15...	1500	112	.5	SEP			
FEB				01...	1100	70	8.0
24...	1200	120	.5				
APR							
13...	1230	120	.5				

09025000 - VASQUEZ CREEK NEAR WINTER PARK, CO. (LAT 39 55 13 LONG 105 47 05)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1715	46	7.5	18...	1410	46	4.0
NOV				JUN			
04...	1430	41	1.0	10...	1945	36	13.0
DEC				29...	1300	38	12.0
10...	1315	--	.0	JUL			
MAR , 1981				28...	1230	45	9.5
09...	1315	37	.0	SEP			
APR				01...	1245	45	8.0
16...	0835	52	3.0				

09025400 - ELK CREEK NEAR FRASER, CO. (LAT 39 55 09 LONG 105 49 31)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1530	52	11.5	18...	1530	40	6.0
NOV				JUN			
04...	1605	48	2.0	08...	1600	50	19.0
DEC				29...	1430	38	14.0
09...	1530	60	1.0	JUL			
MAR , 1981				28...	1500	43	14.5
09...	1420	60	.0	SEP			
APR				03...	1400	46	13.0
13...	1010	50	1.0				

09026500 - ST. LOUIS CREEK NEAR FRASER, CO. (LAT 39 54 36 LONG 105 52 40)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	0935	80	3.0	13...	1500	87	2.0
NOV				MAY			
04...	1730	80	2.0	18...	1500	75	6.0
DEC				JUN			
09...	1330	88	.5	08...	1335	75	13.0
JAN , 1981				JUL			
28...	1450	90	.5	01...	1300	60	12.0
FEB				30...	1500	75	11.5
24...	1430	105	.5	SEP			
APR				01...	1615	75	12.0
01...	1455	100	.5				

09032000 - RANCH CREEK NEAR FRASER, CO. (LAT 39 57 00 LONG 105 45 54)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	1145	45	4.0	15...	1405	52	1.0
NOV				MAY			
05...	1110	47	1.0	20...	1310	44	6.0
DEC				JUN			
10...	1040	18	.0	08...	1450	32	12.0
JAN , 1981				29...	1600	38	13.0
28...	1215	50	5.0	JUL			
FEB				28...	1600	41	10.0
24...	1610	65	.5	SEP			
APR				01...	1415	42	9.0
01...	1320	70	1.0				

09034900 - BOBTAIL CREEK NEAR JONES PASS, CO. (LAT 39 45 37 LONG 105 54 21)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				APR , 1981			
02...	1040	58	2.5	27...	1215	120	.5
NOV				JUN			
13...	1020	58	.0	01...	1205	38	2.0
DEC				JUL			
22...	1220	68	.0	16...	1335	<50	8.0
JAN , 1981				AUG			
30...	1115	<50	.0	28...	1120	60	10.0
MAR							
30...	1330	70	.0				

09035500 - WILLIAMS FORK BELOW STEELMAN CREEK, CO. (LAT 39 46 44 LONG 105 55 40)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAR , 1981			
02...	1315	48	4.5	30...	1315	<50	.0
NOV				JUN			
13...	1240	58	1.0	01...	1155	38	5.0
DEC				JUL			
22...	1130	65	--	16...	1140	65	10.0
JAN , 1981				AUG			
29...	1040	<50	.0	28...	1345	75	11.0

09035700 - WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO. (LAT 39 47 22 LONG 106 01 18)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1100	60	5.0	19...	1130	73	4.5
NOV				JUN			
05...	1710	58	2.0	30...	1115	50	13.5
DEC				JUL			
11...	1100	60	1.0	29...	1130	62	10.0
MAR , 1981				SEP			
10...	1000	75	.0	02...	1115	55	9.0
MAY							
06...	1130	150	3.0				

09035800 - DARLING CREEK NEAR LEAL, CO. (LAT 39 48 17 LONG 106 01 11)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1330	62	4.0	19...	1330	67	4.0
NOV				JUN			
05...	1520	65	2.0	30...	1330	53	9.0
DEC				JUL			
12...	1100	85	1.0	29...	1315	70	7.0
MAR , 1981				SEP			
10...	1135	90	.0	02...	1245	75	6.0
MAY							
06...	1425	<50	3.0				

09035900 - SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO. (LAT 39 47 44 LONG 106 01 49)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1220	80	4.0	19...	1000	70	3.0
NOV				JUN			
06...	1515	80	3.0	10...	1210	38	7.0
DEC				30...	1000	55	8.0
11...	1425	70	.0	JUL			
MAR , 1981				29...	1000	75	6.0
10...	1340	100	.0	SEP			
APR				02...	1000	85	5.0
14...	1600	83	2.0				

09036000 - WILLIAMS FORK NEAR LEAL, CO. (LAT 39 49 53 LONG 106 03 15)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1535	77	9.0	19...	1450	80	3.0
NOV				JUN			
06...	1700	60	4.0	10...	1400	35	10.5
DEC				30...	1500	56	14.8
10...	1500	80	1.0	JUL			
FEB , 1981				29...	1500	73	13.0
03...	1040	80	.5	SEP			
MAR				02...	1105	75	11.5
10...	1515	90	3.0				
APR							
14...	0900	83	3.0				

09037500 - WILLIAMS FORK NEAR PARSHALL, CO. (LAT 40 00 01 LONG 106 10 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1650	90	11.5	15...	0915	85	3.0
NOV				MAY			
06...	1020	90	3.0	20...	0900	110	7.5
DEC				JUL			
11...	1700	--	.0	30...	0815	87	11.5
FEB , 1981				SEP			
02...	1545	90	.5	03...	0900	85	10.0
MAR							
11...	1250	100	.0				

09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO. (LAT 40 02 07 LONG 106 12 17)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1645	87	9.5	15...	1100	100	4.0
NOV				MAY			
06...	1200	90	8.0	20...	1100	95	5.5
DEC				JUL			
12...	1025	70	4.0	01...	1100	100	8.0
FEB , 1981				30...	1300	95	5.5
03...	1330	100	3.5	SEP			
MAR				03...	1000	97	8.5
11...	1445	120	3.0				

09039000 - TROUBLESOME CREEK NEAR PEARMONT, CO. (LAT 40 13 03 LONG 106 18 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
NOV , 1980				MAY , 1981			
07...	1020	95	3.0	20...	1100	95	7.0
DEC				JUN			
17...	1045	60	.0	24...	1025	100	10.5
JAN , 1981				JUL			
21...	1150	85	.0	22...	1445	85	17.0
MAR				AUG			
05...	1110	95	.5	27...	1110	105	12.0
APR							
21...	1735	110	7.0				

09040000 - EAST FORK TROUBLESOME C NEAR TROUBLESOME, CO. (LAT 40 09 27 LONG 106 16 58)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
NOV , 1980				MAY , 1981			
07...	1215	200	4.5	20...	1225	160	10.0
DEC				JUN			
17...	1225	220	.0	24...	1250	185	18.0
JAN , 1981				JUL			
21...	1200	230	.0	22...	1650	220	19.0
MAR				AUG			
05...	1255	220	.0	27...	0900	210	10.0
APR							
21...	1650	110	9.5				

09046600 - BLUE RIVER NEAR DILLON, CO. (LAT 39 32 55 LONG 106 02 19)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
NOV , 1980				MAY , 1981			
04...	1215	120	6.0	20...	1155	220	5.0
DEC				JUN			
04...	1330	120	7.0	08...	1140	180	5.0
JAN , 1981				26...	0830	280	7.0
14...	1150	140	1.0	JUL			
MAR				28...	1055	180	5.0
12...	1445	300	3.0	SEP			
APR				01...	1400	200	8.0
01...	1130	180	1.5				
14...	1015	180	5.0				

09047500 - SNAKE RIVER NEAR MONTEZUMA, CO. (LAT 39 36 20 LONG 105 56 33)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	1055	110	3.5	15...	0955	--	.5
NOV				MAY			
07...	1600	100	3.0	19...	1105	110	4.5
DEC				JUN			
16...	1145	100	.0	23...	1115	75	10.0
JAN , 1981				JUL			
20...	1200	120	.0	21...	1105	75	10.0
MAR				AUG			
03...	1200	130	.0	25...	1100	85	8.5

09047700 - KEYSTONE GULCH NEAR DILLON, CO. (LAT 39 35 40 LONG 105 58 19)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
07...	1205	80	4.0	15...	1155	--	1.0
NOV				MAY			
12...	1140	77	2.0	19...	1225	75	5.0
DEC				JUN			
16...	1400	80	.0	23...	1450	72	11.5
JAN , 1981				JUL			
20...	1400	75	.0	21...	1315	72	13.0
MAR				AUG			
03...	1400	85	.0	25...	1220	82	10.0

09050100 - TENMILE CREEK BL NORTH TENMILE C, AT FRISCO, CO. (LAT 39 34 37 LONG 106 06 33)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
07...	1630	400	11.0	20...	1800	200	4.0
NOV				26...	1150	280	2.0
04...	1015	500	5.0	JUN			
DEC				08...	1440	200	5.0
04...	1230	700	2.0	26...	1110	185	6.0
JAN , 1981				JUL			
14...	0905	420	.0	28...	0950	180	4.0
MAR				AUG			
12...	1130	300	1.0	26...	1340	170	11.0
APR				SEP			
01...	0850	180	.0	19...	1055	52	7.5
21...	0920	440	3.0				
MAY							
01...	1030	320	3.0				
05...	1210	200	2.0				

09050700 - BLUE RIVER BELOW DILLON, CO. (LAT 39 37 32 LONG 106 03 57)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
10...	0930	180	6.5	21...	1010	160	4.0
NOV				MAY			
12...	1335	170	7.0	19...	1715	180	5.0
DEC				JUN			
19...	1515	175	4.0	23...	1655	180	7.0
JAN , 1981				JUL			
23...	1530	195	4.0	24...	1420	175	8.0
MAR				AUG			
06...	1655	240	3.5	25...	1420	175	8.0

09052000 - ROCK CREEK NEAR DILLON, CO. (LAT 39 43 23 LONG 106 07 41)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1800	62	7.0	16...	1145	--	1.0
NOV				MAY			
14...	1610	62	.0	19...	1530	45	6.0
DEC				JUN			
16...	1355	60	.0	26...	1725	28	12.0
JAN , 1981				JUL			
20...	1730	75	.0	21...	1600	38	14.0
MAR				AUG			
06...	1540	74	.0	25...	1640	52	12.5

09052400 - BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 43 41 LONG 106 10 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1635	50	7.0	25...	1800	40	.5
NOV				MAY			
12...	1635	65	1.0	21...	1620	42	2.5
DEC				JUN			
19...	1245	68	.0	26...	1500	25	12.5
JAN , 1981				JUL			
23...	1345	60	.0	23...	1630	41	14.0
MAR				AUG			
03...	1610	75	.0	28...	1240	60	12.0

09052800 - SLATE CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 45 47 LONG 106 11 31)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1315	37	7.0	05...	1545	110	2.0
NOV				22...	1400	42	--
13...	1600	49	1.0	JUN			
DEC				26...	1010	22	11.0
19...	1140	60	.0	JUL			
JAN , 1981				24...	1100	30	11.0
23...	1210	70	.0	AUG			
MAR				26...	1615	36	15.0
04...	1120	72	.0				

09054000 - BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO. (LAT 39 47 59 LONG 106 16 04)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	0940	19	10.0	22...	0935	30	6.0
NOV				JUN			
13...	1210	23	5.0	25...	1510	21	11.0
DEC				JUL			
18...	1510	25	2.5	23...	1330	22	15.0
JAN , 1981				AUG			
22...	1640	30	1.5	26...	1240	25	15.0
MAR							
06...	1400	35	2.0				

09055300 - CATARACT CREEK NEAR KREMMLING, CO. (LAT 39 50 07 LONG 106 18 57)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	0910	34	10.5	22...	1625	55	7.0
NOV				MAY			
13...	0940	37	4.0	21...	0940	46	8.0
DEC				JUN			
18...	0940	40	2.0	25...	1000	29	6.0
JAN , 1981				JUL			
22...	1000	48	2.0	23...	0900	31	17.0
MAR				AUG			
06...	1020	56	3.0	26...	0940	36	16.5

09057500 - BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO. (LAT 39 52 49 LONG 106 20 00)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1110	150	13.0	21...	1135	130	5.0
NOV				MAY			
14...	1405	155	8.0	05...	1355	185	5.0
21...	1355	160	6.0	21...	1300	185	6.0
DEC				JUN			
18...	1235	160	4.0	25...	1215	180	10.0
JAN , 1981				JUL			
22...	1420	165	4.0	23...	0945	170	8.0
MAR				AUG			
04...	1430	185	3.5	28...	1100	165	10.0

09058000 - COLORADO RIVER NEAR KREMMLING, CO. (LAT 40 02 12 LONG 106 26 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
08...	1435	190	14.0	21...	1435	200	10.0
NOV				MAY			
14...	1045	220	3.5	20...	1640	300	13.0
DEC				JUN			
17...	1625	200	1.0	24...	1635	300	22.0
JAN , 1981				JUL			
21...	1645	185	.5	22...	1030	220	15.0
MAR				AUG			
05...	1635	230	5.0	27...	1520	175	13.0

09058500 - PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO. (LAT 39 42 29 LONG 106 25 38)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	0905	59	3.0	06...	1340	50	6.0
NOV				JUN			
25...	1430	60	.0	03...	1455	34	7.0
JAN , 1981				24...	1310	37	12.5
06...	1255	75	.5	JUL			
FEB				29...	1100	46	14.0
12...	1230	52	.0	SEP			
APR				01...	1110	47	13.5
07...	1625	65	.5				

09058610 - DICKSON CREEK NEAR VAIL, CO. (LAT 39 42 14 LONG 106 27 25)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1630	395	11.5	06...	1930	260	9.0
NOV				JUN			
25...	1200	360	.5	02...	1100	260	11.5
JAN , 1981				24...	1620	300	22.0
06...	1500	500	.5	JUL			
FEB				29...	1430	380	18.0
12...	1625	410	.5	SEP			
APR				01...	1420	390	14.5
08...	1530	390	.0				

09058700 - FREEMAN CREEK NEAR MINTURN, CO. (LAT 39 41 55 LONG 106 26 41)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1740	200	10.0	06...	1745	120	8.5
NOV				JUN			
25...	1410	280	.5	02...	1350	130	16.0
FEB , 1981				24...	1725	155	21.5
12...	1800	300	.0	JUL			
APR				29...	1645	--	19.0
08...	1400	215	.0				

09058800 - EAST MEADOW CREEK NEAR MINTURN CO. (LAT 39 43 54 LONG 106 25 36)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				JUN , 1981			
09...	1100	73	2.0	03...	1115	38	3.0
NOV				24...	1040	43	7.0
26...	1045	70	.0	JUL			
APR , 1981				29...	0950	64	12.5
07...	1150	61	.5	SEP			
MAY				01...	0930	65	6.5
06...	1045	55	1.0				

09059500 - PINEY RIVER NEAR STATE BRIDGE, CO. (LAT 39 48 00 LONG 106 35 00)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
10...	1030	400	6.0	07...	1420	180	7.5
NOV				JUN			
17...	1300	400	.0	05...	1615	150	13.0
JAN , 1981				10...	1230	85	10.5
05...	1200	490	.0	23...	1100	140	11.5
FEB				JUL			
09...	1310	390	2.0	27...	1415	260	16.5
APR				SEP			
16...	1240	285	8.0	03...	1045	300	12.5

09063000 - EAGLE RIVER AT RED CLIFF, CO. (LAT 39 30 34 LONG 106 22 00)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
16...	1230	350	1.5	05...	1750	180	6.5
NOV				JUN			
18...	1700	250	.5	02...	1615	125	9.0
JAN , 1981				23...	1530	195	12.5
07...	1620	210	.0	JUL			
FEB				30...	1720	245	15.0
10...	1750	250	.0	SEP			
APR				02...	1505	250	14.5
10...	0900	220	1.0				

09063200 - WEARYMAN CREEK NEAR RED CLIFF, CO. (LAT 39 31 14 LONG 106 19 06)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
16...	0925	390	.0
NOV			
19...	0915	270	.5
JAN , 1981			
05...	1430	390	.5
FEB			
09...	1630	270	.5
APR			
09...	1600	240	.5
MAY , 1981			
05...	1300	260	4.0
JUN			
04...	1510	220	6.0
25...	1055	225	6.0
JUL			
30...	1600	265	8.0
SEP			
02...	1305	280	6.5

09063400 - TURKEY CREEK NEAR RED CLIFF, CO. (LAT 39 31 22 LONG 106 20 15)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
16...	1115	360	1.0
DEC			
03...	1425	275	.5
JAN , 1981			
05...	1530	380	.0
FEB			
09...	1740	180	.0
APR			
09...	1100	290	1.0
MAY , 1981			
05...	1610	220	5.0
JUN			
09...	1650	185	8.5
25...	1200	210	12.0
JUL			
30...	1500	260	10.0
SEP			
02...	1400	280	9.5

09063900 - MISSOURI CREEK NEAR GOLD PARK, CO. (LAT 39 23 25 LONG 106 28 10)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
15...	1120	115	2.0
NOV			
03...	1610	28	.0
18...	0930	32	.0
FEB , 1981			
11...	1340	44	.0
MAR			
16...	1450	41	1.0
MAY			
04...	1950	38	.5
JUN , 1981			
04...	1040	28	2.5
25...	1635	19	11.5
JUL			
30...	1200	28	11.5
AUG			
12...	1235	28	9.5
SEP			
02...	0900	32	7.0

09064000 - HOMESTAKE CREEK AT GOLD PARK, CO. (LAT 39 24 20 LONG 106 25 58)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
15...	1305	80	6.0
NOV			
18...	1100	31	.5
FEB , 1981			
11...	1700	50	.0
MAR			
16...	1625	37	1.0
MAY			
04...	1800	29	6.0
JUN , 1981			
04...	1220	28	8.0
25...	1515	27	13.5
JUL			
30...	1030	29	10.5
SEP			
02...	1035	36	9.0

09064500 - HOMESTAKE CREEK NEAR RED CLIFF, CO. (LAT 39 28 24 LONG 106 22 02)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
15...	1500	--	9.0
NOV			
18...	1400	36	.5
JAN , 1981			
08...	1015	47	.5
FEB			
13...	0935	56	.0
MAR			
17...	1650	34	.0
APR			
06...	1513	36	.0
MAY , 1981			
04...	1600	35	10.5
JUN			
02...	1825	44	12.5
25...	1355	33	18.0
JUL			
30...	0900	35	9.5
SEP			
02...	1100	40	10.5

09065100 - CROSS CREEK NEAR MINTURN, CO. (LAT 39 34 05 LONG 106 24 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
16...	1530	--	2.5	04...	1345	28	5.0
DEC				JUN			
03...	1640	43	1.0	03...	1840	25	7.0
JAN , 1981				23...	1410	26	13.0
07...	1430	65	.5	JUL			
FEB				27...	1650	34	14.0
13...	1135	69	1.0	SEP			
APR				03...	0830	42	10.5
06...	1700	58	1.0				

09065500 - GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40 LONG 106 16 24)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
08...	1155	<50	5.0	19...	1335	110	3.0
NOV				26...	1400	120	2.0
07...	1055	<50	5.0	JUN			
DEC				09...	1250	120	5.0
03...	1315	<50	2.0	JUL			
JAN , 1981				27...	1250	<50	6.0
14...	1510	<50	.0	SEP			
MAR				02...	0950	<50	9.0
13...	0825	<50	.0	08...	1430	<50	9.0
31...	1505	<50	.0				
APR							
23...	1220	85	1.5				

09066000 - BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47 LONG 106 15 52)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1030	80	5.0	23...	1200	120	2.0
NOV				MAY			
07...	1015	65	5.0	19...	1150	180	3.0
DEC				JUN			
03...	1015	90	2.0	09...	1000	200	5.0
JAN , 1981				25...	0950	210	5.0
14...	1010	<50	.0	JUL			
MAR				27...	1120	165	10.0
13...	1140	<80	.0	SEP			
31...	1115	100	.0	02...	0850	140	10.0
APR							
15...	1500	--	.5				

09066100 - BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24 LONG 106 17 34)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1620	<50	4.5	23...	1350	60	2.0
NOV				MAY			
07...	1220	<50	5.0	19...	1040	<50	3.0
DEC				JUN			
03...	1050	<50	1.0	09...	1100	120	5.0
JAN , 1981				25...	1115	85	5.0
15...	1610	<50	.0	JUL			
MAR				27...	1355	95	9.0
13...	1440	<50	.0	SEP			
APR				02...	1040	<50	15.0
01...	1355	<50	.0				

09066150 - PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37 LONG 106 18 07)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1325	<50	5.0	23...	1520	80	2.0
NOV				MAY			
07...	1530	<50	5.0	14...	1455	<50	3.0
DEC				JUN			
03...	1610	<50	2.0	09...	1430	85	10.0
JAN , 1981				25...	1430	120	5.0
15...	1420	<50	.0	JUL			
MAR				27...	1510	85	7.0
13...	1620	<50	.0	SEP			
APR				02...	1240	<50	10.0
01...	1520	<50	.0				

09066200 - BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02 LONG 106 19 16)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
09...	1250	<50	5.0
NOV			
07...	1410	<50	5.0
DEC			
03...	1710	<50	2.0
JAN , 1981			
15...	1205	<50	.0
MAR			
13...	1715	<50	.0
31...	1600	<50	.0
APR			
15...	1600	--	1.0
APR , 1981			
23...	1615	60	2.0
MAY			
19...	1615	65	3.0
JUN			
09...	1605	120	10.0
25...	1555	130	5.0
JUL			
27...	1615	85	8.0
SEP			
02...	1415	70	7.0

09066300 - MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50 LONG 106 22 48)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
09...	1220	<50	5.0
NOV			
07...	1205	<50	5.0
DEC			
03...	1810	<50	2.0
JAN , 1981			
15...	1015	<50	.0
MAR			
13...	1800	<50	.0
31...	1720	<50	.0
APR , 1981			
23...	1655	<50	2.0
MAY			
19...	1640	<50	3.0
JUN			
09...	1630	75	5.0
25...	1710	65	5.0
JUL			
27...	1705	<50	8.0
SEP			
02...	1400	<50	5.0

09066400 - RED SANDSTONE CREEK NEAR MINTURN, CO. (LAT 39 40 58 LONG 106 24 03)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
17...	0940	250	.0
NOV			
26...	1335	98	.0
JAN , 1981			
07...	1030	110	.0
FEB			
10...	1200	100	.0
APR			
08...	1820	82	1.0
MAY , 1981			
07...	0925	42	.0
JUN			
03...	1640	52	4.5
23...	1730	69	11.5
JUL			
28...	1725	80	11.0
SEP			
01...	1605	95	10.0

09070000 - EAGLE RIVER BELOW GYPSUM, CO. (LAT 39 38 58 LONG 106 57 11)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
15...	1410	990	11.0
NOV			
24...	1510	1080	1.5
JAN , 1981			
15...	1510	1200	.5
FEB			
24...	1610	950	6.0
MAR			
31...	1200	890	3.5
MAY , 1981			
05...	1430	276	11.3
JUN			
02...	1600	215	12.0
30...	1920	320	18.0
AUG			
05...	1730	890	23.0
SEP			
18...	1300	800	11.0

09071300 - GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO. (LAT 39 43 04 LONG 107 18 51)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
08...	1300	240	10.5
APR , 1981			
15...	1435	--	.5
JUN			
01...	1630	150	6.0
10...	1615	205	11.5
11...	0830	205	8.0
JUN , 1981			
22...	1520	235	17.5
JUL			
28...	1200	--	16.0
AUG			
31...	1655	195	15.0

09073005 - LINCOLN CREEK BL GRIZZLY RESERVOIR, NR ASPEN CO. (LAT 39 04 48 LONG 106 36 57)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
14...	1500	100	9.0
NOV			
19...	1145	110	1.5
MAR , 1981			
17...	1100	140	2.0
APR			
29...	1530	72	1.0
MAY			
12...	1000	70	2.5
14...	0955	68	3.0
JUN , 1981			
10...	0915	80	4.0
17...	1625	53	7.0
18...	0910	54	5.0
JUL			
14...	0930	--	12.5
AUG			
18...	1010	66	9.5

09073300 - ROARING FORK RIVER AB DIFFICULT C NR ASPEN, CO. (LAT 39 08 28 LONG 106 46 25)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
08...	1605	70	8.5
NOV			
19...	1605	57	.0
JAN , 1981			
08...	0945	80	.0
FEB			
19...	1005	75	.5
APR			
08...	0840	80	.5
30...	0915	48	2.5
MAY , 1981			
12...	1400	44	4.0
JUN			
10...	1305	65	--
JUL			
14...	1450	--	15.5
AUG			
18...	1400	67	13.5

09073400 - ROARING FORK RIVER NEAR ASPEN, CO. (LAT 39 10 48 LONG 106 48 05)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
14...	1800	115	8.5
NOV			
21...	0905	65	.0
JAN , 1981			
07...	1700	80	.0
FEB			
18...	1450	90	3.0
APR			
08...	0945	90	.5
28...	1610	65	9.0
MAY , 1981			
12...	1550	62	4.5
JUN			
10...	1645	52	5.0
JUL			
14...	1620	--	19.0
AUG			
18...	1630	74	16.5

09074000 - HUNTER CREEK NEAR ASPEN, CO. (LAT 39 12 21 LONG 106 47 49)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
10...	0940	80	5.5
NOV			
18...	1630	38	.0
JAN , 1981			
08...	1145	85	.0
28...	1530	90	.0
FEB			
18...	1000	76	.0
APR			
08...	1030	90	.5
APR , 1981			
29...	1045	34	3.0
MAY			
14...	1410	37	7.5
JUN			
11...	1035	40	6.5
JUL			
15...	0925	46	10.5
AUG			
19...	0850	47	8.5

09074800 - CASTLE CREEK ABOVE ASPEN, CO. (LAT 39 05 15 LONG 106 48 42)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980			
08...	1330	360	9.0
NOV			
18...	1315	390	.0
JAN , 1981			
07...	1550	400	.0
FEB			
18...	1200	415	2.0
APR			
08...	1350	300	3.5
28...	1100	230	4.5
MAY , 1981			
14...	1625	360	10.5
JUN			
11...	1330	175	10.5
JUL			
15...	1130	300	9.0
AUG			
19...	1345	315	12.0

09075700 - MAROON CREEK ABOVE ASPEN, CO. (LAT 39 07 25 LONG 106 54 17)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
08...	1115	530	7.0	14...	1815	480	8.5
NOV				JUN			
18...	1045	500	1.0	11...	1650	650	9.0
JAN , 1981				JUL			
06...	1520	650	3.0	15...	1315	--	11.5
FEB				AUG			
19...	1445	740	5.0	19...	1600	470	13.0
APR							
07...	0900	--	2.5				
28...	1410	700	11.0				

09076520 - OWL CREEK NEAR ASPEN, CO. (LAT 39 13 25 LONG 106 52 45)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1515	640	9.0	14...	1950	260	11.0
NOV				JUN			
17...	1630	520	.0	11...	1830	450	15.0
JAN , 1981				JUL			
07...	1420	580	.0	15...	1455	--	18.5
FEB				AUG			
18...	1420	540	.0	19...	1120	550	13.0
APR							
08...	1415	440	.5				
28...	0920	205	3.5				

09077610 - IVANHOE CREEK NEAR NAST, CO. (LAT 39 17 13 LONG 106 33 31)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				JUL , 1981			
01...	1110	--	5.0	29...	1330	--	10.5
15...	1110	--	3.0	AUG			
MAY , 1981				13...	1355	--	9.0
13...	0950	--	.0	26...	1350	--	10.0
JUN				SEP			
17...	1000	--	3.5	11...	0940	--	8.0
JUL				22...	1240	--	8.0
15...	1340	--	12.0				

09078000 - FRYINGPAN RIVER AT NORRIE, CO. (LAT 39 19 51 LONG 106 39 27)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1430	70	11.0	13...	1225	50	6.0
NOV				JUN			
20...	1500	70	.0	09...	1530	45	5.0
JAN , 1981				JUL			
07...	1135	78	.0	13...	1710	--	12.5
FEB				AUG			
17...	1530	87	.0	17...	1655	58	15.5
APR							
06...	1200	80	.5				
27...	1615	48	7.5				

09081600 - CRYSTAL RIVER AB AVALANCHE C, NEAR REDSTONE, CO. (LAT 39 13 56 LONG 107 13 36)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1215	520	11.0	11...	1520	320	6.0
NOV				JUN			
17...	1245	700	3.5	09...	1230	450	6.0
JAN , 1981				JUL			
09...	1020	380	4.0	16...	1010	--	14.5
FEB				AUG			
20...	1030	700	5.5	17...	1405	460	17.5
APR							
06...	1600	700	10.0				
27...	1240	330	9.5				

09085200 - CANYON CREEK ABOVE NEW CASTLE, CO. (LAT 39 38 19 LONG 107 24 21)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980 17...	1145	320	7.0	MAY , 1981 04...	1720	235	9.0
NOV 26...	1000	250	3.0	JUN 04...	1700	230	11.0
JAN , 1981 14...	1700	290	4.0	29...	1255	280	15.0
FEB 25...	1240	305	8.0	AUG 06...	1430	360	19.0
APR 01...	1415	310	11.0				

09085300 - EAST CANYON CREEK NEAR NEW CASTLE, CO. (LAT 39 36 33 LONG 107 26 03)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980 17...	0900	380	5.5	MAY , 1981 05...	1045	210	7.0
NOV 25...	1545	400	2.5	22...	1150	240	9.0
JAN , 1981 14...	1245	320	.5	JUN 04...	1830	230	11.0
FEB 25...	0920	430	1.0	18...	1630	260	10.0
APR 01...	1530	420	6.0	29...	1445	280	13.5
				AUG 06...	1350	410	16.0

09085400 - POSSUM CREEK NEAR NEW CASTLE, CO. (LAT 39 35 52 LONG 107 25 24)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980 17...	1020	350	2.0	MAY , 1981 07...	1615	325	5.0
NOV 26...	0900	370	1.0	JUN 05...	0930	380	7.0
JAN , 1981 14...	1440	370	.5	29...	1640	280	13.0
FEB 25...	1010	300	1.5	AUG 06...	1630	340	14.0
APR 01...	1500	350	5.0				

09089500 - WEST DIVIDE CREEK NEAR RAVEN, CO. (LAT 39 19 52 LONG 107 34 46)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980 20...	1240	470	4.0	APR , 1981 23...	1200	235	11.0
NOV 26...	1140	530	.0	MAY 14...	1430	220	10.5
JAN , 1981 09...	1320	430	.0	JUN 12...	1515	150	17.0
FEB 13...	1230	380	.0	JUL 15...	1530	245	23.5
MAR 18...	1430	400	.0	AUG 03...	1730	315	24.0

09092500 - BEAVER CREEK NEAR RIFLE, CO. (LAT 39 28 19 LONG 107 49 55)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980 14...	1200	280	7.0	MAY , 1981 04...	1200	165	5.5
NOV 26...	1400	310	.0	JUN 05...	1330	180	10.5
JAN , 1981 30...	1345	340	.0	JUL 02...	1215	280	14.0
MAR 25...	1500	340	3.5	AUG 03...	1430	300	17.0

09095526 - GOVERNMENT HIGHLINE CA AT 18 ROAD, NR LOMA, CO. (LAT 39 15 25 LONG 108 45 22)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980			
17...	1520	1190	10.0
APR , 1981			
04...	0900	1300	9.0
08...	1320	1400	12.0
10...	0900	1230	13.0
15...	1335	1220	14.0
16...	1000	1100	14.0
17...	0910	1020	14.0
20...	0950	960	14.5
21...	0905	1050	12.0
24...	1015	850	14.0
27...	1045	1000	16.0
29...	0715	700	14.0
MAY			
01...	0715	750	15.0
05...	0850	560	12.5
08...	0930	570	11.5
11...	0900	700	13.0
13...	1000	780	12.5
15...	0930	930	14.0
18...	0925	920	13.5
20...	0935	870	13.5
22...	0910	780	13.0
MAY , 1981			
26...	0855	720	17.0
27...	0845	880	16.5
29...	0850	750	18.0
JUN			
04...	0920	430	17.0
08...	0905	410	18.0
10...	0900	360	18.0
12...	0850	310	18.0
15...	0845	450	15.0
17...	0900	560	15.5
19...	0950	560	17.0
22...	0845	770	20.0
24...	0800	650	21.0
26...	1035	620	21.5
29...	1040	940	21.0
JUL			
02...	1040	900	20.5
06...	1115	870	22.0
08...	1350	920	24.5
10...	1045	960	23.5
14...	1050	900	22.0
JUL , 1981			
16...	1035	820	22.0
21...	1020	810	21.0
23...	1050	830	22.0
27...	1040	1030	21.0
29...	1010	990	21.0
AUG			
03...	0810	1000	21.5
05...	0930	1050	22.0
07...	0850	1080	22.5
10...	1220	980	22.0
12...	1240	1200	20.0
17...	0830	870	20.0
19...	1110	970	21.0
24...	0740	980	20.5
26...	1000	880	20.5
AUG , 1981			
28...	0955	1050	20.5
31...	0920	1000	19.5
SEP			
02...	0915	975	19.0
11...	1135	930	19.0
14...	1000	950	16.0
16...	1020	860	18.0
18...	1005	1010	17.5
21...	1045	1020	18.0
23...	1045	1110	17.5
25...	0935	1200	17.5
28...	1125	1080	15.5
30...	1020	1100	16.0

09095528 - LATERAL NO. 48 NEAR MACK, CO. (LAT 39 16 17 LONG 108 49 59)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980			
02...	1100	1100	17.5
APR , 1981			
07...	1415	1150	11.0
MAY			
12...	1350	750	16.0
JUN			
08...	1510	360	19.5
JUL , 1981			
22...	0920	1000	22.0
AUG			
11...	0915	1020	20.5
SEP			
17...	1255	1250	18.5

09095530 - GOVERNMENT HIGHLINE CANAL NEAR MACK, CO. (LAT 39 17 09 LONG 108 49 46)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980			
02...	0820	1100	16.5
APR , 1981			
04...	1015	1400	9.0
08...	1040	1120	11.0
MAY			
14...	1340	860	15.0
JUN			
09...	1240	340	19.0
JUL , 1981			
22...	0950	900	22.0
AUG			
10...	1250	1100	22.0
SEP			
17...	1315	1050	19.0

09105000 - PLATEAU CREEK NEAR CAMEO, CO. (LAT 39 11 00 LONG 108 16 10)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
22...	1545	780	8.5	28...	1200	460	17.0
DEC				JUN			
02...	1000	750	2.0	12...	1100	670	18.5
JAN , 1981				JUL			
19...	1500	810	2.5	06...	1300	580	25.0
FEB				AUG			
25...	1530	690	7.0	14...	0800	570	16.0
APR				SEP			
22...	1400	400	14.0	09...	1300	650	16.0

09106104 - KIEFER EXTENSION GRAND VALLEY CA NR FRUITA, CO. (LAT 39 13 31 LONG 108 46 28)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				JUN , 1981			
20...	1200	1130	8.5	08...	1045	430	18.5
MAR , 1981				JUL			
19...	0805	1250	7.0	06...	1315	920	23.0
APR				AUG			
07...	1335	1080	10.5	11...	0910	1080	20.0
MAY				SEP			
12...	1055	820	13.5	10...	1015	1100	19.0

09106108 - KIEFER EXTENSION GRAND VALLEY CANAL NR LOMA, CO. (LAT 39 13 40 LONG 108 49 06)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				JUN , 1981			
02...	1200	1000	19.0	09...	1145	480	19.0
MAR , 1981				JUL			
19...	0900	1300	7.0	21...	1250	910	22.5
APR				AUG			
07...	1325	760	11.5	11...	1140	1120	20.0
MAY				SEP			
14...	1320	780	15.0	17...	1055	1220	18.0

09109000 - TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO. (LAT 38 49 06 LONG 106 36 31)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1525	80	12.0	04...	1455	110	4.5
NOV				JUN			
18...	1000	--	3.0	01...	1420	120	6.0
JAN , 1981				22...	1455	115	7.0
05...	1540	145	2.5	JUL			
FEB				06...	1410	90	7.0
09...	1420	140	3.5	AUG			
MAR				03...	1440	100	8.5
31...	1200	105	3.5	27...	1250	100	11.0

09110000 - TAYLOR RIVER AT ALMONT, CO. (LAT 38 39 52 LONG 106 50 41)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
07...	1230	90	9.5	04...	1725	140	12.0
NOV				JUN			
18...	1145	140	2.0	01...	1615	130	12.0
JAN , 1981				22...	1805	150	15.0
06...	1250	170	.5	JUL			
FEB				06...	1640	65	15.0
09...	1605	170	.5	AUG			
APR				03...	1635	140	16.0
01...	1235	190	6.0	31...	1655	120	13.0

09112200 - EAST RIVER BL CEMENT CREEK NR CRESTED BUTTE, CO. (LAT 38 47 24 LONG 106 52 21)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1980				MAY , 1981			
07...	0925	200	6.0	05...	0955	130	4.0
NOV				JUN			
18...	1315	320	3.5	02...	0955	180	6.0
JAN , 1981				22...	1550	175	16.0
06...	1400	340	4.0	JUL			
FEB				07...	0950	230	11.5
10...	1005	350	.5	AUG			
MAR				04...	0920	330	10.5
31...	0955	260	4.0	31...	1425	340	15.5

SPECIFIC CONDUCTANCE AND TEMPERATURE DATA AT SELECTED SITES

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09112500 - EAST RIVER AT ALMONT CO. (LAT 38 39 52 LONG 106 50 50)							
OCT , 1980							
07...	1040	220	7.5				
NOV				MAY , 1981			
10...	1440	320	3.0	05...	1130	220	7.0
JAN , 1981				JUN			
06...	1150	380	1.0	02...	1125	200	7.0
FEB				22...	1715	280	17.5
10...	1160	360	.5	JUL			
MAR				07...	1045	280	13.0
31...	0855	200	2.0	AUG			
				04...	1040	340	14.0
				31...	1535	290	16.0
09113500 - OHIO CREEK NEAR BALDWIN, CO. (LAT 38 42 08 LONG 106 59 52)							
OCT , 1980							
06...	1740	140	14.5				
NOV				MAY , 1981			
17...	1545	105	2.0	05...	1325	120	9.0
JAN , 1981				JUN			
06...	0955	130	2.0	02...	1335	120	16.0
FEB				24...	0920	165	11.5
10...	1205	130	.0	JUL			
APR				07...	1205	130	18.0
01...	1025	155	.5	AUG			
				04...	1220	205	17.0
				27...	0900	170	10.0
09114500 - GUNNISON RIVER NEAR GUNNISON, CO. (LAT 38 32 31 LONG 106 56 57)							
OCT , 1980							
07...	1455	130	12.0				
NOV				JUN , 1981			
10...	1615	195	2.0	02...	1535	250	13.5
JAN , 1981				23...	0900	235	11.0
06...	1540	170	1.0	JUL			
FEB				07...	1410	240	16.0
10...	1430	--	.5	AUG			
MAR				04...	1425	160	17.0
30...	1600	190	7.0	SEP			
MAY				01...	0905	215	11.0
05...	1510	220	11.0				
09119000 - TOMICHI CREEK AT GUNNISON, CO. (LAT 38 31 18 LONG 106 56 25)							
OCT , 1980							
07...	1615	240	17.0				
NOV				JUN , 1981			
19...	0935	160	2.0	02...	1655	380	22.0
JAN , 1981				23...	0855	400	14.0
06...	1630	180	1.5	JUL			
FEB				07...	1550	360	21.0
10...	1535	360	.5	AUG			
APR				04...	1550	320	23.0
01...	1445	240	10.0	SEP			
MAY				01...	1010	340	13.0
05...	1645	360	13.0				
09124500 - LAKE FORK AT GATEVIEW, CO. (LAT 38 17 56 LONG 107 13 46)							
OCT , 1980							
08...	0950	140	8.0				
NOV				JUN , 1981			
17...	1300	160	1.0	03...	1025	120	6.0
JAN , 1981				24...	0950	130	12.5
07...	0935	150	.5	JUL			
FEB				08...	1015	130	16.0
11...	0935	230	.5	AUG			
APR				05...	1005	135	14.5
02...	1000	145	1.0	SEP			
MAY				01...	1215	180	15.0
06...	0950	140	8.0				

09126000 - CIMARRON RIVER NEAR CIMARRON, CO. (LAT 38 15 45 LONG 107 32 39)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				JUN , 1981			
08...	1245	100	13.0	05...	1205	102	9.5
NOV				24...	1215	80	10.0
19...	1355	140	1.0	JUL			
JAN , 1981				08...	1245	80	12.0
07...	1245	130	.5	AUG			
FEB				05...	1250	90	14.0
11...	1255	130	.5	SEP			
APR				02...	1110	165	14.0
06...	1230	120	.5				
MAY							
06...	1255	95	6.0				

09128000 - GUNNISON RIVER BELOW GUNNISON TUNNEL, CO. (LAT 38 31 45 LONG 107 38 54)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				JUN , 1981			
08...	1600	125	12.0	03...	1515	200	10.0
NOV				24...	1505	190	12.0
20...	1400	130	8.0	JUL			
JAN , 1981				08...	1615	180	11.0
08...	1415	200	5.0	AUG			
FEB				05...	1535	210	14.0
11...	1640	320	4.0	SEP			
APR				02...	1410	200	12.5
02...	1445	175	5.0				
MAY							
06...	1515	200	8.5				

09128500 - SMITH FORK NEAR CRAWFORD, CO. (LAT 38 43 40 LONG 107 30 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1220	146	11.5	06...	1230	90	7.5
NOV				JUN			
19...	1015	175	.0	03...	0920	85	7.0
JAN , 1981				JUL			
14...	0900	170	.0	15...	0855	125	13.0
FEB				AUG			
10...	1500	160	.0	04...	1655	150	22.5
MAR				SEP			
17...	1455	140	3.5	01...	1715	140	19.0
APR							
14...	1540	135	8.0				

09129600 - SMITH FORK NEAR LAZEAR, CO. (LAT 38 42 27 LONG 107 42 35)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1410	2800	17.0	06...	1350	2800	16.0
JAN , 1981				JUN			
16...	0840	2800	.0	03...	1040	2800	15.0
FEB				JUL			
11...	0900	3500	.0	15...	1015	2450	19.5
MAR				AUG			
18...	0840	--	4.5	05...	0845	2800	16.0
APR				SEP			
15...	0850	3400	11.0	02...	0845	--	4.5

09131100 - COW CREEK NEAR PAONIA, CO. (LAT 39 06 15 LONG 107 35 02)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				JUL , 1981			
10...	1200	180	5.5	14...	0940	175	13.5
MAY , 1981				AUG			
05...	1005	82	4.5	04...	0935	180	12.5
JUN				SEP			
02...	0940	140	8.0	01...	1015	--	10.0

09135900 - LEROUX CREEK AT HOTCHKISS, CO. (LAT 38 47 53 LONG 107 43 53)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1530	1600	15.0	06...	1510	1350	15.0
NOV				JUN			
19...	1330	1200	8.0	03...	1215	1650	14.5
JAN , 1981				JUL			
14...	1210	1400	5.0	15...	1230	1670	19.0
FEB				AUG			
11...	1115	1430	3.0	05...	1015	1300	14.5
MAR				SEP			
18...	1020	1280	7.5	02...	1015	1350	14.0
APR							
14...	1705	1500	14.0				

09136200 - GUNNISON RIVER NEAR LAZEAR, CO. (LAT 38 46 59 LONG 107 50 14)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
22...	1630	1160	12.5	06...	1720	330	13.0
NOV				JUN			
19...	1540	1450	5.0	03...	1410	460	15.5
JAN , 1981				29...	1025	1210	21.5
14...	1400	1250	4.0	JUL			
FEB				15...	1415	1020	27.0
11...	1345	900	2.0	28...	0955	--	17.5
MAR				AUG			
18...	1310	--	15.0	05...	1235	1250	22.5
APR				SEP			
15...	1135	--	13.5	02...	1230	1180	19.0
MAY				28...	1255	1150	16.0
03...	1415	270	13.0				

09137050 - CURRANT CREEK NEAR READ, CO. (LAT 38 47 05 LONG 107 56 18)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
06...	1645	4000	15.0	05...	1740	12600	15.0
NOV				JUN			
19...	1700	4500	4.0	03...	1540	7500	22.0
JAN , 1981				JUL			
13...	1630	4100	2.5	13...	1430	--	25.0
FEB				AUG			
11...	1505	3700	.0	05...	1400	*8000	25.5
MAR				SEP			
18...	1425	4500	8.5	02...	1400	8000	22.5
APR							
15...	1300	7200	14.5				

09143000 - SURFACE CREEK NEAR CEDAREDGE, CO. (LAT 38 59 05 LONG 107 51 13)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
09...	1540	80	11.5	07...	1645	80	8.5
NOV				JUN			
20...	1155	190	.0	09...	0935	95	9.0
JAN , 1981				JUL			
15...	1610	160	.0	17...	1015	100	13.0
APR				AUG			
15...	1450	185	1.5	05...	1535	210	19.0

09143500 - SURFACE CREEK AT CEDAREDGE, CO. (LAT 38 54 06 LONG 107 55 14)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				APR , 1981			
09...	1655	110	13.0	15...	1625	160	9.0
NOV				MAY			
20...	1350	200	1.0	08...	0805	100	3.0
JAN , 1981				JUN			
16...	1025	180	.0	04...	1625	100	14.5
FEB				JUL			
18...	0945	220	1.0	16...	1600	100	19.5
MAR				AUG			
1[illegible] ..	1345	200	6.5	05...	1700	90	20.5

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09144200 - TONGUE CREEK AT CORY, CO. (LAT 38 47 16 LONG 107 59 41)							
OCT , 1980				MAY , 1981			
09...	1520	1750	14.5	08...	0935	2000	9.5
NOV				JUN			
20...	1520	1600	4.5	09...	1110	2200	20.0
JAN , 1981				JUL			
14...	1535	1400	2.0	15...	1555	3200	27.5
FEB				AUG			
18...	1105	1700	5.0	06...	1720	2800	26.0
MAR				SEP			
18...	1545	1680	11.0	09...	0930	2500	16.0
APR							
17...	0830	1140	9.5				
09144250 - GUNNISON RIVER AT DELTA, CO. (LAT 38 45 01 LONG 108 04 06)							
NOV , 1980				JUN , 1981			
21...	0925	160	5.0	09...	1210	780	18.0
JAN , 1981				29...	1325	1300	22.0
16...	1245	440	3.5	JUL			
FEB				17...	0815	1500	19.0
18...	1310	630	5.0	AUG			
MAR				07...	0830	1300	18.0
20...	0840	720	5.0	SEP			
APR				02...	1700	1280	20.0
17...	1035	780	11.0				
MAY							
08...	1300	920	11.0				
09146200 - UNCOMPAHGRE RIVER NEAR RIDGWAY, CO. (LAT 38 11 02 LONG 107 44 43)							
OCT , 1980				JUN , 1981			
09...	1050	500	9.5	04...	1030	490	8.5
NOV				25...	1000	350	11.5
20...	1015	620	3.0	JUL			
JAN , 1981				09...	1020	650	13.5
08...	1050	1080	2.0	AUG			
FEB				06...	1015	590	12.0
12...	1045	750	3.0	SEP			
APR				03...	0955	900	11.5
03...	1015	900	6.0				
MAY							
07...	1040	490	8.0				
09147000 - DALLAS CREEK NEAR RIDGWAY, CO. (LAT 38 10 40 LONG 107 45 28)							
OCT , 1980				MAY , 1981			
09...	0935	600	7.0	07...	0930	1350	7.0
NOV				JUN			
20...	0930	670	.5	01...	0910	900	11.0
JAN , 1981				JUL			
08...	0945	1000	2.0	09...	1920	890	14.0
FEB				AUG			
12...	0950	760	2.0	06...	0910	950	12.0
APR				SEP			
03...	0905	650	3.5	03...	0905	570	11.0
09147500 - UNCOMPAHGRE RIVER AT COLONA, CO. (LAT 38 19 53 LONG 107 46 44)							
OCT , 1980				JUN , 1981			
16...	1125	430	7.0	04...	1240	520	13.0
NOV				25...	1155	540	15.0
19...	1630	860	3.5	JUL			
JAN , 1981				09...	1155	660	18.0
07...	1555	870	2.0	AUG			
FEB				06...	1200	680	17.5
12...	1215	870	15.0	SEP			
APR				02...	1605	875	17.0
02...	1635	850	13.0				
MAY							
07...	1215	560	12.0				

09149500 - UNCOMPAHGRE RIVER AT DELTA, CO. (LAT 38 44 31 LONG 108 04 49)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
17...	0940	590	9.0	04...	1250	1560	15.0
DEC				JUN			
03...	1120	2300	6.0	11...	1055	880	16.5
JAN , 1981				JUL			
13...	1130	2400	.5	07...	1115	2000	19.0
FEB				AUG			
11...	1045	2500	.5	07...	1010	1700	16.0
MAR				SEP			
09...	1120	1450	6.5	02...	1520	1850	19.5
APR							
06...	1220	1250	10.0				

09150500 - ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO. (LAT 38 44 06 LONG 108 09 40)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
16...	1430	1000	9.0	06...	1020	840	6.0
NOV				30...	1205	440	12.0
07...	1300	1650	9.5	MAY			
DEC				04...	1430	500	13.0
03...	1315	1850	6.5	JUN			
JAN , 1981				11...	0910	1470	17.0
13...	1345	1700	2.0	JUL			
FEB				07...	0940	1900	21.0
11...	1230	1800	.0	AUG			
MAR				03...	1545	1800	18.0
09...	0955	1420	4.5	31...	1615	1500	22.0

09151500 - ESCALANTE CREEK NEAR DELTA, CO. (LAT 38 45 24 LONG 108 15 34)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				APR , 1981			
17...	1210	500	10.0	30...	1035	210	12.0
DEC				MAY			
03...	1530	620	7.5	04...	1045	245	11.5
JAN , 1981				JUN			
13...	1545	630	1.5	11...	1305	710	24.0
FEB				JUL			
11...	1430	600	.0	07...	1310	880	28.0
MAR				AUG			
09...	1450	600	10.0	07...	1325	800	26.0
APR							
06...	1450	500	14.5				

09152000 - KANNAH CREEK NEAR WHITEWATER, CO. (LAT 38 57 42 LONG 108 13 47)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
15...	1315	150	6.0	26...	1200	85	8.5
DEC				JUN			
02...	1430	155	2.5	15...	1100	120	7.5
JAN , 1981				JUL			
14...	0930	140	.0	09...	1100	115	16.0
FEB				14...	1300	120	17.0
09...	1050	170	1.0	AUG			
MAR				05...	1300	110	17.0
10...	1400	180	6.0	SEP			
APR				10...	1100	100	12.0
23...	1200	165	7.5				

09152600 - ORCHARD MESA DRAIN AT GRAND JUNCTION, CO. (LAT 39 02 49 LONG 108 34 17)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1980				MAY , 1981			
15...	1545	2100	12.0	26...	1525	1700	17.5
DEC				JUN			
04...	1315	3800	11.5	15...	0845	1150	12.5
JAN , 1981				JUL			
14...	1530	3800	8.0	09...	1000	1800	21.5
FEB				AUG			
09...	1315	4000	7.0	05...	1200	2000	22.5
MAR				SEP			
11...	0840	3800	5.5	10...	0905	1700	17.0
APR							
21...	0900	1300	11.5				

09152650 - LEACH CREEK AT DURHAM, CO. (LAT 39 05 27 LONG 108 36 25)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				APR , 1981			
20...	1600	2200	12.0	23...	0900	1450	11.0
DEC				JUN			
04...	1130	4600	7.5	04...	0845	1050	15.0
JAN , 1981				JUL			
15...	1110	4200	3.0	09...	0835	1600	20.5
FEB				AUG			
09...	1500	3900	6.0	05...	1000	2050	18.5
MAR				SEP			
11...	1000	3700	6.0	10...	1300	1850	18.0

09152900 - ADOBE CREEK NEAR FRUITA, CO. (LAT 39 08 13 LONG 108 41 48)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				MAY , 1981			
16...	1500	2010	10.5	12...	0905	1830	11.5
DEC				JUN			
04...	0915	5000	6.0	08...	1235	1300	18.5
JAN , 1981				JUL			
15...	1000	4000	1.5	06...	0915	1730	18.0
FEB				AUG			
10...	1530	2400	2.0	10...	0955	1600	19.0
MAR				SEP			
11...	1125	4500	6.5	10...	0840	1850	17.0
APR							
07...	0925	1730	8.0				

09153290 - REED WASH NEAR MACK, CO. (LAT 39 12 41 LONG 108 48 11)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980				APR , 1981			
02...	1240	1750	17.0	07...	1125	1490	10.0
NOV				MAY			
06...	0900	4600	8.0	13...	1125	1140	12.5
DEC				JUN			
08...	1550	4000	8.5	10...	1305	1390	20.0
JAN , 1981				JUL			
08...	1100	4500	3.5	08...	0850	1800	20.0
FEB				AUG			
10...	1120	4300	3.0	11...	1100	2000	18.0
MAR				SEP			
11...	1525	4200	9.5	10...	1210	1850	18.5

09163050 - BADGER WASH NEAR MACK, CO. (LAT 39 17 36 LONG 108 55 59)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1980			
03...	1040	1100	16.0
APR , 1981			
04...	1705	1500	9.0
09...	1015	1400	11.0
MAY			
13...	1025	490	13.0
JUN			
10...	0925	325	18.0
JUL			
21...	1200	920	23.0
AUG			
12...	1025	1320	19.5
SEP			
18...	1020	1150	17.5

09077200 - FRYINGPAN RIVER NEAR IVANHOE LAKE, CO. (LAT 39 14 44 LONG 106 31 51)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
MAY , 1981			AUG , 1981		
13...	1140	.5	13...	1050	7.0
JUN			26...	1150	8.5
19...	1145	7.0	SEP		
JUL			11...	1105	7.0
15...	1215	10.5	22...	1430	8.0
29...	1115	9.0			

09077800 - SF FRYINGPAN R AT UPPER STATION, NR NORRIE, CO. (LAT 39 14 30 LONG 106 35 33)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
OCT , 1980			AUG , 1981		
01...	1340	9.0	12...	1140	8.0
JUN , 1981			25...	1045	7.0
19...	0920	2.5	SEP		
JUL			09...	1450	8.5
14...	1040	7.5	23...	1100	5.5
30...	1110	8.0			

09077945 - CHAPMAN GULCH NEAR NAST, CO. (LAT 39 15 51 LONG 106 37 54)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
OCT , 1980			JUN , 1981		
01...	1230	9.0	18...	1525	5.0
15...	1355	6.5	JUL		
NOV			14...	1245	9.5
03...	1040	6.0	30...	1305	9.5
DEC			AUG		
31...	0945	.5	12...	1530	10.0
MAR , 1981			25...	1325	11.5
19...	1000	6.5	SEP		
APR			09...	1210	9.0
16...	1200	5.0	23...	1305	9.5
MAY					
13...	1430	3.5			

09078500 - NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO. (LAT 39 20 34 LONG 106 39 55)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
OCT , 1980			MAY , 1981		
02...	1220	6.5	14...	0910	3.5
22...	1100	1.5	JUN		
NOV			19...	1345	11.0
17...	1050	.5	JUL		
26...	1405	.5	14...	1505	14.5
DEC			30...	1700	16.5
31...	1340	.5	AUG		
FEB , 1981			11...	1450	13.5
26...	1235	.0	26...	1545	14.0
MAR			SEP		
19...	1200	.5	08...	1350	13.0
APR			23...	1510	11.0
16...	1230	2.0			

09078600 - FRYINGPAN RIVER NEAR THOMASVILLE, CO. (LAT 39 20 41 LONG 106 40 23)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
OCT , 1980			MAY , 1981		
02...	1110	8.0	14...	1040	5.0
22...	1155	3.0	JUN		
NOV			18...	1215	8.5
17...	1015	.5	JUL		
26...	1120	.5	14...	1650	16.0
DEC			28...	1315	14.0
30...	1325	.5	29...	1610	15.0
FEB , 1981			AUG		
26...	1030	.0	11...	1235	10.5
MAR			26...	0950	11.0
18...	1615	.0	SEP		
APR			09...	1635	13.5
16...	1330	2.0	25...	1150	7.5

09080400 - FRYINGPAN RIVER NEAR RUEDI, CO. (LAT 39 21 56 LONG 106 49 30)

DATE	TIME	TEMPER-ATURE (DEG C)	DATE	TIME	TEMPER-ATURE (DEG C)
OCT , 1980			MAY , 1981		
09...	1830	8.0	13...	1020	6.0
NOV			JUN		
20...	1030	6.0	09...	1535	6.5
JAN , 1981			JUL		
08...	1410	5.0	13...	1515	7.0
FEB			AUG		
17...	1245	3.5	17...	1830	8.0
APR			SEP		
06...	1325	5.5	16...	1200	9.0
27...	1500	11.0			

DELTA COUNTY

384234N108085101 SC15-96-328AD. State of Colorado. Drilled domestic water-table well in Dakota Group. Diameter, 6 in. (0.2 m). Depth, 230 ft (70.1 m). MP, 0.3 ft (0.091 m) above lsd. Altitude of land surface, 4,960 ft (1,512 m). Records available: 1976, 1978-80.

Oct. 14, 1981 -0.08 ft (flowing)

GRAND COUNTY

400248N105560301 SB 1-76-18DBC. W. F. Linke. Drilled recreation water-table well in Middle Park Formation. Diameter, 6 in. (0.2 m). Depth, 603 ft (183.8 m). MP, 6.0 ft (1.83 m) above lsd. Altitude of land surface, 8,075 ft (2,461 m). Records available: 1973-80.

Highest water level, 3.4 ft (1.04 m) below lsd, Aug. 28, 1974; lowest water level, 76.25 ft (27.546 m) below lsd, Aug. 11, 1977.

Aug. 13, 1981 4.19 ft

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons